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Havasupai

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HAVASUPAI ETHNOGRAPHY

By Leslie Spier

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HAVASUPAI ETHNOGRAPHY

By Leslie Spier

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PREFACE

The Havasupai are a small and obscure group of Yuman-speaking 101
Indians living in the neighborhood of the Grand Canyon in north-central
Arizona. Our earliest knowledge of them dates from their discovery in 175
1776 by Padre Francisco Garcés. But they have remained so secluded in
their inaccessible canyon home, that we know very little of them even
today. There are brief descriptions resulting from the visits of Ives'
party in 1858, Coues in 1881, and of James and Curtis' parties at various
times. Cushing, who spent a few days with them in 1881, has described
The Nation of the Willows at somewhat greater length. Their cultural 121
position still remaining in doubt, I was sent by the American Museum
in 1918 for a general ethnographic study. Some parts of this have
already been published as *The Havasupai Indians of Cataract Cañon*
(1918), *Havasupai Days* (1920), *Havasupai (Yuman) Texts* (1924), and
The Association Test as a Method of Defining Religious Concepts (1927).
With the exception of the last two, this material appears again in the
present paper.

My first visit to the Havasupai in August, 1918, was on behalf of 114
the American Museum, for whom an ethnological collection was made. 122
The second trip (August–November, 1919) was made as William Bayard
Cutting Travelling Fellow of Columbia University, with the Museum's
further assistance. A third trip (August–September, 1921) was aided,
like the second, by the Southwest Society of New York. I am also 127
under obligations to my wife, Erna Gunther, for some tales and incidental
material collected in 1921, to Doctor Paul M. Standley and Doctor William
A. Setchell for plant determinations, to Miss Edna M. Fisher and Doctor
C. D. Shane for determinations of snakes and stars, respectively, to many
anthropologist friends for notes, and to Doctor Herbert E. Bolton for the
use of a manuscript on the Caddoan Hasinai.

Much of the old life is still open to observation. Social life, religion, 178
and to only a lesser extent, the material culture, of these people is
practically intact. Yet let me add for the timorous souls who fear that 101
the inroads made by white culture may be underestimated, that I have
used the historical present throughout in my description only as a matter
of convenience. My principal informant, Sinyella, was an energetic 115
and well-informed old man, aged 71. So much material is directly autobiographical,
that it would have been possible to present this sketch as
an account of his life. My interpreters, Jess Checkapanyega and Mark

115 Hanna, both young men, spoke English moderately well, and the first proved himself invaluable.

The phonetic scheme is as follows:—

194
104

a	as in father	ȧ	as in but
ă	hat		
e	fate	ĕ	met
i	pique	ĭ	pin
o	note	ŏ	not
u	rule	ŭ	put
ω	law		

The remaining symbols follow the "Phonetic Transcription of Indian Languages." By inadvertence, the printer has set the stress accent over the vowel in the manner there recommended for pitch accents. Pitch accents differentiate three pairs of words used in this paper: *áhà*, water, *áhá*, cottonwood tree; *kàθò'dá*, coyote, *kàθà'dà*, left hand; *θàúìgà* a woman's term for her child (lit. issue), *θàúígà*, a woman's children. Kʳ probably corresponds to ţ (cerebral t), but for lack of certainty as to its exact character, the strong trill is indicated as shown. Glottalization is weak. Final vowels are habitually elided. Some words were heard variously: I have not attempted to spell them uniformly.

Some observations of a general sort, such as those on thought, the
121 character of the chiefs, etc., will doubtless seem quite naïve to my professional brethren. While we take these for granted, I can assure them that outsiders do not.

I have made a point of noting what traits are absent among the
128 Havasupai but which might be expected to appear. This is especially important for a tribe of distinctly intermediate cultural position.

The comparative notes which are offered are not so systematic as I
114 wish. I have attempted to include most of the material available in
127 print for at least a thousand miles around the Havasupai. Undoubtedly much has been missed, especially the Mexican material. The literature
128 is scattered and random in content. It is surprisingly incomplete, for, with the exception of the Pima and Hopi, we have nothing like complete ethnographies for the Southwestern tribes. The description of even the material culture in the only spot in the United States where it remains in anything like its pristine condition, has hardly been begun. The comparative work is also somewhat one-sided, for I have made the Havasupai traits my point of departure. In a few cases I have gone further afield
101 for the sake of completeness. But as the Havasupai are not a typical
128

Southwestern tribe the comparisons do not clearly show the interrelations 101
of this area. On the distribution maps I have entered the names of 128
only those tribes for whom data are available.

A. L. Kroeber's *Handbook of the Indians of California* appeared 000
when this manuscript was completed and should therefore be used for further comparisons with my material.

The long delay in the completion of this paper is due in part to a desire to include the comparative material, but in larger degree to more imperative duties which have crowded the last five years.

Leslie Spier.

University of Washington, July, 1925.

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INTRODUCTION

Territory

The territory of the Havasupai in north-central Arizona comprises 131
the broad drainage area of Cataract Canyon and the bottom of that
gorge itself. From the viewpoint of the Havasupai village in the canyon 133
bottom, this drainage area is a high plateau. It extends from the east where the benches of Coconino Basin give toward the Little Colorado River, to the Aubrey Cliffs on the west, these marking the descent toward the Colorado River. The northern edge of the area is the rim and the broken ledges of the Grand Canyon: the southern limit is marked by the heights of the San Francisco Peaks and Bill Williams Mountain, beyond which the country falls away to the south. This forms a winter range some ninety miles by seventy-five.

Cataract Canyon cuts across this plateau from Bill Williams Mountain on the south to the Grand Canyon. Near its northern end it is, like the Grand Canyon, a double gorge; first a mile wide canyon through the white limestone some twenty-five hundred feet deep, and then a narrower gorge three to five hundred feet deep, winding through the red sandstone in the bottom. The Havasupai village is located about six miles from the mouth of Cataract Canyon at the widest point in its bed where it is a quarter mile across. The bottom lands between the talus slopes are, however, only five hundred acres in extent. In effect the village is shut in on all sides by towering cliffs which can be scaled in but a few places. Northward, the canyon drops away by a series of nearly impassable falls to join the Grand Canyon. Beyond that lies mile on mile of broken ledge and mountain to the northern rim of the Grand Canyon. Egress to the south is by way of its tortuous ramified arms: Hualapai Canyon to the west, Lee Canyon to the east, and several more, Moqui Trail Canyon among them, further north. In effect, traveling to the north is next to impossible, and to the plateau above is so difficult as to make the isolation quite complete.

Several hundred yards above the village, Cataract Creek bursts 133
from the bed of the canyon, gathers rapidly in volume, and rushes as a
narrow erratic stream for two and a half miles to plunge in three great 137
falls to the Colorado. This section is an oasis: irrigated fields and [241]
orchards stretch between the talus slopes; the stream is bordered by a dense growth of willows and cottonwoods; mesquite and other bushes cover the slopes. The red sandstone benches above this are arid except for a few springs, as is the bed of the canyon above the village. Here grow

133 137 mescal, yucca, and a sparse scrub growth. Still higher is the plateau: at the lower elevations this is covered with sagebrush, chamiso, etc.; at a higher level grow juniper, cedar, and piñon trees; and at the Grand Canyon rim and toward the mountains are pines, spruce, and fir. Water is very scarce on the plateau; springs are found chiefly near the mountains, elsewhere the surface run-off of summer rains and melting snows may be caught behind little dams.

[102]
[131]

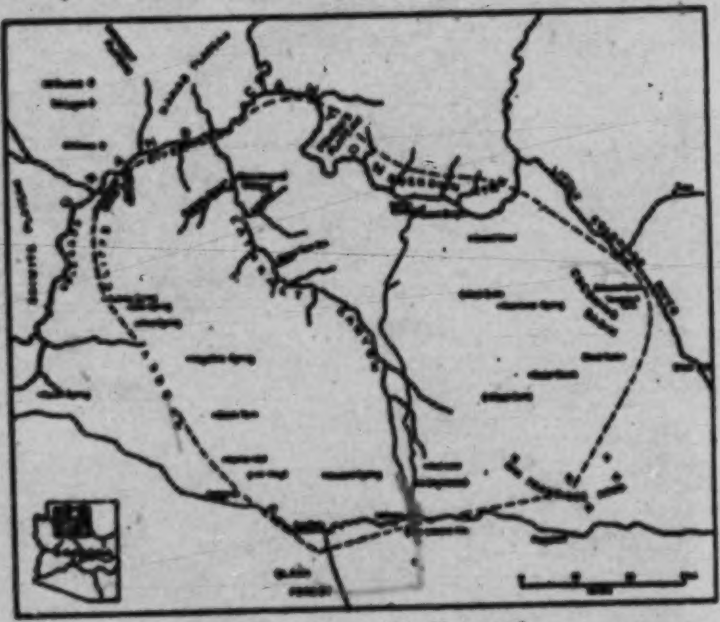

Fig. 1. Territory of the Havasupai.

132 Precipitation is confined to two periods, the heavy summer rains (July to early October) and the winter snowfall (December and January). Its distribution varies from five to fifteen inches per annum over the greater part of the range to a maximum of twenty-five inches near the mountains in the south. The rains are sudden and torrential and the run-off excessive, the accumulated waters rushing into the lower canyon and producing dangerous flood conditions. I witnessed an unheralded 132 731 cloudburst in August, 1918, when all the heights spurted torrents upon the village below. Everyone fled to the cliffs; the swollen creek swept

[text continues on p.94]

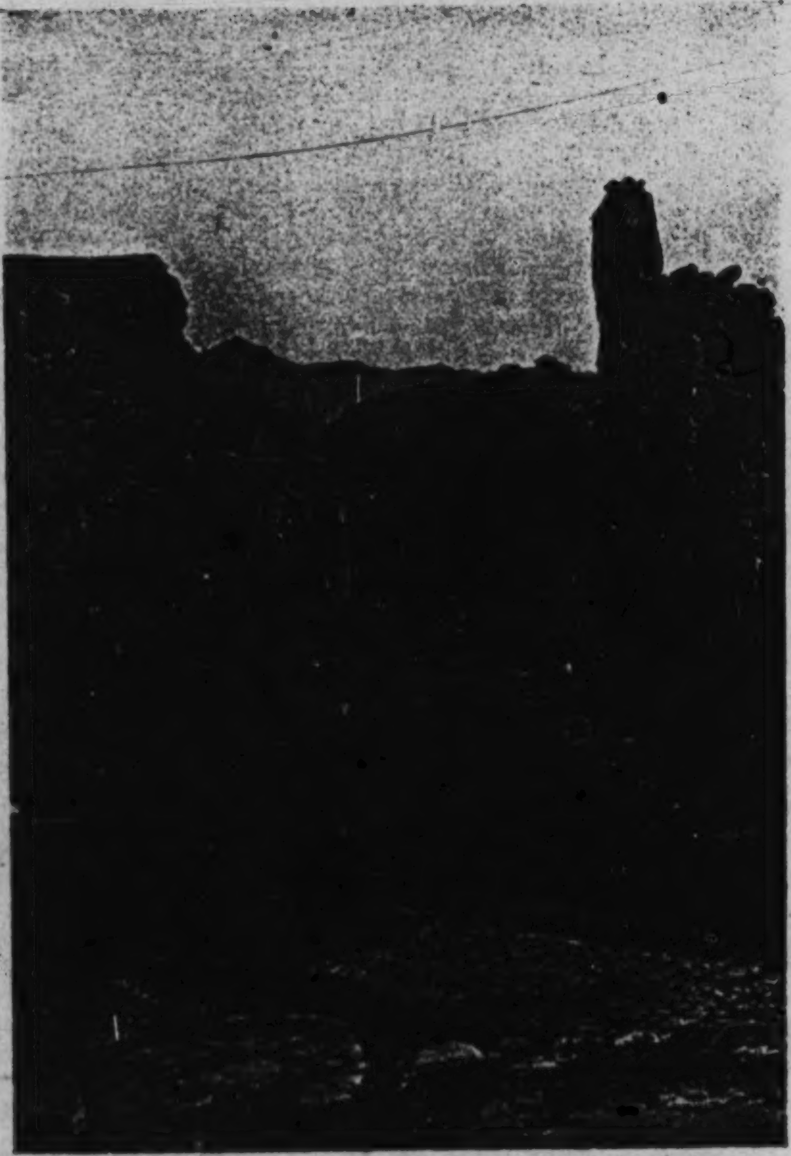

Fig. 2. Havasupai Village in Cataract Canyon. The lower canyon level (red bench) shows in the middle ground, the level of the plateau in the distance.

132 away houses and destroyed fields. For a week, during which further storms threatened, no one made more than trifling efforts to restore
731 things to their former condition. The severest flood of recent years was that of January, 1911, when a heavy rain brought down the accumulated snows from the plateau, filling the canyon bed quite to the talus slopes, tearing away a third of the field area, and on its subsidence leaving the creek in a new location.

The prevailing winds are from the southwest. These blow hardest
132 and are most annoying in the spring, on account of dust storms. The temperature on the plateau varies from a midwinter mean of 30° F. to 70° F. in midsummer; that in the canyon is about ten degrees higher the year round. There is sometimes as much as a foot of snow in the canyon bottom, yet snowfalls are infrequent. Despite the fact that it is
361 warmer in the canyon, the Havasupai prefer to spend the winter on the plateau, partly because it is less humid there, but rather more because there is an adequate supply of good firewood, and chiefly because their interest lies in the hunting, seed gathering, and visiting activities of this season.

Beside the village in Cataract Canyon, the Indian Gardens
131 (*kàθadĕvhĕ'*, coyote tail?) on Bright Angel trail below Grand Canyon station, and perhaps some similar farm lands elsewhere, as at Prospect Valley, the Havasupai consider a large section of the plateau as their proper range. Its limits are approximately as follows. On the north, the benches on the south side of the Grand Canyon, the Buckskin Mountains, and Powell's Plateau: on the east, perhaps Coconino Basin and the plateau west of it; Hawaigàti'dà, a spring perhaps east of Black Tank, and Pökàdespai'Ivà, near Hull Spring (Cedar Ranch) north of the San Francisco peaks, with the whole northern and western slopes of those mountains: on the south, Red Lake at the head of Cataract Canyon, Black (or Kisaha) tank (*hàwaigĭvĭlĭĕ'*) north of Seligman, Howard Spring (*nalĭsdhá*), and at least in recent times they hunted in the vicinity of Ash Fork and perhaps north of the Black Forest. The limits on the west are more difficult to define since they commonly occupied
[101] certain localities together with the Walapai, for example, Pine Spring (*hakdád*, where there were also Paiute living with them about 1860), and Moho Canyon at the northern end of the Aubrey Cliffs. Beyond these points the Havasupai consider themselves well out of their own territory. Prospect Valley and Pine Spring formerly belonged to the Havasupai alone, the Walapai subsequently crowding them out.

It would seem that beyond this range, at least on all save the western
101 side, there was considerable unoccupied territory. Paiute settlements

lay beyond the Grand Canyon, both east of the Uinkaret Mountains 101 and in the Kanab district. The intervening territory is so rugged and the Colorado so difficult to cross that intercourse was at a minimum. [133] The Paiute did cross to the south side, however, in Walapai territory and to the east, where they moved up the Little Colorado. There were no permanent habitations in the vicinity of the Little Colorado (at least as far up as the falls). The Navaho and Hopi settlements are referred to as located at or near Oraibi and the Moencopie Wash. Navaho and Hopi were encountered in this region, however, and occasionally Paiute, who, for instance, were found on the western side of the river in the vicinity of Coconino Basin about 1855.

There is some question as to how early the Navaho appeared west of 174 the Hopi pueblos. A circumstantial account indicates that the Havasupai met them for the first time about 1864. They were encamped on the 648 plateau above the Coconino Basin, and told of other camps on both sides of the Little Colorado, and from the Grand Canyon rim to the San Francisco peaks. They were not acquainted with each other's language; hence, intercourse was carried on by signs and in the Hopi tongue. The Navaho asserted that they were half of a group living far east of Oraibi and had fled to escape capture by the whites. On the other hand, one Navaho insisted that the Havasupai had raided his camp in the Moencopie district. This incident coincides exactly with the recorded activities of Kit Carson. In 1863 he invaded the Navaho country in New Mexico, capturing some 6000, the greater part of the tribe, and moving them to the Bosque Redondo, where they were released in 1867.[1]

It is also evident that there was a considerable stretch of unoccupied 114 territory along the present line of the Santa Fé Railroad. References to 174 the Yavapai and Apache clearly indicate that their camps were well 131 down on the headwaters of the Verde River and its tributaries. The notion has gained currency, however, that the Havasupai once lived [101] about the San Francisco Mountains and along the adjacent sections of the Little Colorado—in fact, that they were found there by the railroad explorers of the last century. For example, Henshaw observes that

> according to tradition, the Havasupai (or more properly a Pueblo clan or tribe that became incorporated with them) formerly built and occupied villages of a permanent character on the Colorado Chiquito east of the San Francisco mountains, where ruins were pointed out to Powell by a Havasupai chief as the former home of his people. As the result of war with tribes farther east, they abandoned these villages and took

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[1] *Handbook of American Indians*, II, 41; Lipps, *The Navajos*, 54 et seq. In 1826 Pattie reached "the chief village of the Nabahoes" four days travel up the San Juan River; this was "distant 30 miles from the Rio del Norte." (Pattie, *Personal Narrative*, 139, 144.)

114 refuge in the San Francisco mountains, subsequently leaving these for their present abodes. In this connection it is of interest to note that the Cosnino caves on the
131 upper Rio Verde, near the northern edge of Tonto basin, central Arizona, were named
174 from this tribe, because of their supposed early occupancy of them.[1]

It is true that the Indians refer, in a general way to the nearby ruins as theirs, but what they mean is that those structures were built by the *Uckayúga*, their mythological predecessors.

I have examined the reports of the railroad explorers for more tangible evidence. It seems best to give all the references to Indians in the whole district from the crossing of the Little Colorado westward to the Walapai country. At an early date (1604) Oñate crossed this country but found no one from the Hopi to the vicinity of Prescott.[2] Sitgreaves reports that in October, 1851, Leroux found "a large encampment of Yampai or Tonto Indians, on the edge of a deep ravine, through which ran a stream, which he supposed to be the headwaters of the San Francisco" (i.e., the Verde River); this was on the eastern side of the San Francisco Mountains. He did not speak with them. Others, who fled, were found on the northwest slope. The next reference is to a party of Indians discovered somewhere west of the Picacho or at Yampai Canyon; that is, in the Walapai country. Leroux talked with the Yampai and with one called a "Cojnino" (others were seen) at the source of Yampai Creek (Yampai or Truxton Canyons).[3] In the winter of 1853–54 Whipple noted that "Cosninos are said to roam from Sierra Mogoyon to the San Francisco [Rio Verde or the peaks?], and along the valley of the Colorado Chiquito. Their number has been estimated by trappers at ten thousand—probably a great exaggeration."[4] While he found traces of Indians, he did not see any. Beale made two trips across this country. He refers to the Cosnurio caves, named for the Indians who were said to occupy them. In September 1857 he saw fresh Indians tracks at the eastern foot of the San Francisco Mountains; the next signs were encountered at a point perhaps west of Mount Floyd and deserted huts were found at a locality probably north of the Juniper Mountains. He discovered Indian fields at the head of Yampai Creek (?), which he called a Cosnino camp, and Indians and their camps were seen at the mouth of Truxton Canyon (?).[5] It will be noted that he found no traces between the peaks and Mount Floyd; that he saw no Indians after the Little

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[1] *Handbook of American Indians*, I, 538. Compare *Annual Report of Smithsonian Institution for 1896*, I, 34.

[2] Bandelier, (a), I, 109.

[3] Sitgreaves, 10, 11, 14, 15, 16; Coues, 222.

[4] Whipple, 82. He saw Yavapai in the western Aquarius Mountains, whence they were said to range to the junction of the Rio Virgen with the Colorado.

[5] Beale, 48, 50, 58, 65, 67, 68, 70.

Colorado crossing until he reached Yampai Creek in Walapai territory, 114
and that he talked with none. On his eastward trip, he was attacked at
Truxton Spring or somewhat farther east. Indians were seen in the 131
vicinity of the Coconino caves, and fresh trails were found just west of 174
the Little Colorado.[1] That is, again he saw no Indians between Yampai Canyon and this river. Ives' party visited Cataract Canyon in 1858; his map No. 2 shows a "Yampai Village" there. On his eastward trip in March and April of that year he found a few Hualpais in the vicinity of Truxton Spring; huts and Indians on the trail leading from a point west of Peach Spring toward Diamond Creek; and saw Hualpais at the Creek. Egloffstein found "Yampais" who "did not differ much from the Hualpais in general appearance" at the present village in Cataract Canyon. Ives also found a deserted village, with huts resembling those in Cataract Canyon, at a point on the plateau far north of Pine Spring, probably above Prospect Valley.[2] But he saw no Indians along the entire route from Pine Spring south to Mount Floyd and eastward by Bill Williams Mountain to the San Francisco mountains and beyond to the river.

The upshot of all this is that not one of these explorers establishes the existence of settlements anywhere along this line, although they passed in autumn and spring, the most favorable time to meet even ranging Havasupai. Their identifications are based on hearsay from their guides, and these—Leroux was probably as competent as any—refer to the Indians of the region indifferently as Yampai, Tonto, or Coconino. Add to this that my informants, who were boys at this time, never once referred to occupation of this region except in the mythological migration period, and that Garcés made the difficult descent into Cataract Canyon in 1776 when he would surely have pursued the direct route from the Walapai to the Hopi villages had there been settlements on it.

LINGUISTIC AND OTHER RELATIONS

Linguistically the Havasupai are closely related to the neighboring 197
Walapai. The dialectic difference is slight. These two are classed by Harrington,[3] together with the Yavapai and Tonto, as the eastern division of the Yuman stock.

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[1] *Ibid*, 79, 82, 88. Incidentally, I was interested in discovering what impression Beale's dromedaries had made on the Indians. My Havasupai informants had never heard of them, although the Walapai saw them, by Beale's account.

[2] Ives, 97, 100, 101, 108, 110. The name Yampai is employed, as by Garcés, for any indifferent group of central Arizona.

[3] *A Yuman Account of Origins*, 324. Some lexical material collected by Cushing and Mrs. Stevenson is given by Gatschet, (n. d.).

Social and cultural relations with the Walapai are also very close. 648 Members of each tribe commonly live with the other, intermarriages are 563 frequent, and they share each other's viewpoint and antipathies to a very high degree. A few instances: Havasupai took part in the mourning for Walapai dead (p. 243); a Walapai shaman finds most of his practice with his mother's people, the Havasupai (p. 277); the latter accompanied the Walapai to war against the Paiute (p. 251); seven Walapai women live in Cataract Canyon and at least three Havasupai women among the Walapai. Garcés in 1776 testified to the same attitude. On the other hand, there are some antagonisms of which the Havasupai are conscious. The younger Walapai wives were pointed out to me at once as foreigners, although it was some time before I discovered that an equal number of older women were also Walapai. The Havasupai mock the others' gruffer mode of speech, and their eating lizards. They also came to blows over a race (p. 253).

An account of their separation from the Yavapai, wherein the latter 101 are represented as driven from Cataract Canyon, is given in a tale. This 174 is improbable; it is more likely that the Havasupai represent an offshoot of the Walapai which took up agriculture and then settled more permanently in the canyon.

The Havasupai call themselves *havasúwaipá*", blue-green water 101 people. By their account they are known to the Zuñi as *kà'nína*,[1] and probably to other easterners by similar names.[1] They call the Walapai *θulgámpayá* or *guelegaiá*; the Yavapai, *ŭcáhuá* (enemy) or *nyávápe*[2]; the Apache (Tonto and White Mountain?), *áhuádjĕ*; the Navaho, *hua'ámá'u*; the Hopi, *mókà*; the Zuñi, *sá'u'ú*; the Mohave (and Yuma?), *wamákava*; the Paiute, *paiutia*; and, by my recollection, the Ute, *yúta* and the Pima, *paínyá*.[3]

The Havasupai numbered 177 in 1919.[3] It does not seem likely that 161 there were ever many more than 250, certainly not over 300. This 174 is apparent from the earlier census reports and also from the limitation of the cultivable area. The present acreage probably could not be doubled. Garcés states that the population did not exceed thirty-four families in 1776.[4] In 1858 Egloffstein reported not more than 200[5]; in 1869 there were 300[6]; in 1881, Cushing found 235[7], and Coues, 214[8];

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[1] Ten Kate, (a), 300, gives Kuhnikwe or Kohninakwe (piñon-nut people ?) as the Zuñi name.

[2] This might be etymologized as ápá, man, and inyi'gá, black, or inyá, sun, but I was specifically told it does not mean black man.

[3] See p. 209 for the composition of population.

[4] Coues, 345.

[5] Ives, 108.

[6] *Handbook of American Indians*, I, 538.

[7] *Third Annual Report, Bureau of Ethnology*, 1884, XVIII.

[8] Coues, 345.

in 1897, less than 300[1]; 1899, 261[2]; 1902, 233; 1903, 237; 1905, 174; 161
1906, 166 (?); 1907, 172. 174

The generation rate, i.e., the interval in years between parent's and child's birth, may be of interest. This is calculated from a revision of the agency census roll. 163

Average difference in years between father and child: 33.7 yrs (103 cases).
Average difference in years between mother and child: 28.2[3] yrs. (77 cases).
Average difference in years between parent and child: 31.4 yrs. (180 cases).

These Indians resemble the lower Colorado River tribes in general appearance, in build and physiognomy, more than the Navaho, Apache, and Zuñi. 144 Hrdlička notes, however, that "they are physically identical with Apache." The stature of Walapai and Havasupai together is given by him as 168.4 cm. for men and 157.7 cm. for women.[4] [141] There is a marked family resemblance within the group.[5] Their light complexions are noticeable; this has been remarked by Garcés, Cushing, and Smart.[6] [142]

ANNUAL CYCLE

A brief description of the yearly round of life will make the details of this sketch more coherent.[7] 221 Early spring finds the Havasupai returning to the canyon from the plateau where they have spent the winter. By this time the snows have melted and they must descend to a water supply. The weather being still inclement some use is made of the caves or rock-shelters at the base of the cliffs while they repair the dirt covering of the houses in the fields below. [342] Spring planting begins in the middle of April; meanwhile they live on corn taken from the little granaries in the cliffs and on mescal gathered from the red sandstone benches where it ripens in May.

Summer life is the fullest of the year. Everyone lives in the village, except for the few who are away trading Hopi and Navaho products with the Walapai or at Oraibi with buckskins of their own or Walapai manufacture. Morning finds the families in the fields; the heat of the afternoon (never excessive) is spent in the sweatlodge or at some favorite spot gambling and gossiping. [512] Corn ripens throughout the summer, from

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[1] *Reports of the Commissioner of Indian Affairs*, 1897, 104; 1902, 163; 1903, 500; 1905, 1, 164; 1906, 178; 1907, 177.

[2] *Statistics of Indian Tribes*, 37.

[3] This figure is probably incorrect due to a deficiency in the number of women of child-bearing years (see p. 200). When the mothers are principally old women, as in this case, the figure is too high, because according to chance the younger children of such women would more frequently figure among the survivors than the older. (The longer the course of the children's life the greater the chance of their deaths

[4] Hrdlička, (g), 413.

[5] A peculiar configuration of the whorls of the ear is common.

[6] Coues, 341; Cushing, 540; Smart, 418.

[7] See also Spier (d).

221 the middle of June until September. When the harvest is abundant, invitations are sent to the neighboring Walapai, Navaho, and Hopi to [648] join in the annual dance, a week of festivity. In the course of gambling and trading, another link is fixed in the trade route that runs [439] from Oraibi and the Navaho settlements, through the Havasupai and Walapai, to the Mohave in the west.

The harvest in, mesquite and local seeds gathered, there is no further attraction in the canyon. In the middle of October the exodus to the plateau begins. By single families, or in groups of two and three, they go off to establish snug camps in the denser cedar thickets. These are semi-permanent, for they move from time to time as piñon nuts are reported growing thickly in one glade, wild seeds abundant in another locality, or hunting good near the mountains. When the snow falls, rabbits, deer, and antelopes are easier to track. During this season they live in part on corn which they have carried up from the canyon, and from time to time replenish from the granaries there. As spring comes they drift back, perhaps along the ledges of the Grand Canyon, to resume life in the village.

ECONOMIC LIFE

AGRICULTURE

The Havasupai are largely agriculturalists. Their interest centers so 241
firmly in their fields, and comparatively so little attention is given to wild products, that the loss of a crop may mean a famine year. In fact, although the quantity of wild seeds and plants that is gathered is considerable, it is used chiefly during the winter to eke out the field products. The Havasupai are inordinately proud of their abundant harvests and their superiority in this regard to the Walapai, Navaho, and Paiute. Harvest is a time for jollification, when their neighbors come to share their bounty. So great is their interest in their fields that even today, when remunerative employment is to be had on the plateau, so Mr. C. H. Gensler, the former agent, informs me, men will leave their work, with its ready money, to tend their crops.

The fields[1] about the village are as extensive as irrigation will permit, [311]
so that, depending on the location of the erratic creek, all of the one hundred tillable acres are farmed. A new field is cleared of brush by grubbing and burning it. Trees are felled by burning their bases; the charcoal is not chopped away, nor are trees ever girdled. The fields are fenced.

At present there are two dams supplying water to the irrigating 312
ditches; the first is located well above the village, whence the main ditch follows the east canyon wall as far as Camp 29 (see map, Fig. 50); The second is at the bend below Camp 26 whence its main ditch parallels the creek in the direction of Camp 51. The dam, which extends halfway across the shallow stream is built about a heavy log set well into the bank, where it is held in place by stakes driven on the down-stream side. The bank is roughly faced with stones to prevent the log washing out. A series of poles are driven obliquely along the upstream side, their upper ends resting on the log. Fascines of willows, about 1.5 m. long and containing stones, are laid end to end along the base of this slanting face, with a second set laid in front on the bed of the creek breaking joints with these. A second tier of fascines might be built above these. Willow brush, placed transverse to the stream, is then piled thickly on the face of the dam to the top. The rapidity of the stream is such as to drive considerable water behind this scoop into the main ditch. Changes of water level produced by every little storm necessitate frequent renewals of the dam. Constant attention is also necessary for the irriga-

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[1] There seems to be no word for cornfield; one speaks of going to his corn, even if the field contains a mixed crop.

312 tion ditches because the sand in which they are built is so light that they easily break.

The main ditches are perhaps two to three feet deep; the others are quite shallow. The ditch system is not complex because most fields that are irrigated lie directly under the main ditches; others are fed by a few laterals. Maintenance of the dams and ditches is not a community affair, but devolves on those whose fields are supplied by the particular dam or ditch. They are dilapidated most of the time, being repaired only as needed. This is to be expected because the material is so light as to wash out easily and it would be futile to keep them up when not in use. There is no set regulation for the use of the water. The supply is large, the need is small, and apparently there is little friction over [578] rights to its use. Yet quarrels have arisen from this source.

Planting is a family occupation, even the children helping to dig 241 holes. Garcés says:—

> 592 I had much complacency to see that as soon it was dawn each married man with his wife and grown sons went forth to till his milpas, taking the necessary implements, as hatchets, dibbles (coas), and hoes, all of which they procure from Moqui.[1]

As a rule each family plants as much corn as possible. Corn, beans, and squash are the staples, the year-round food. Corn (*teyă'dj*) is not planted 243 deep; 5 to 7.5 cm. being usual. Straight lines for the rows of hills may be drawn with the foot; their orientation is immaterial. Kneeling, the [412] first hole is scratched with the planting stick (*hwdlid*) in the manner of a canoe man wielding his paddle. This is a buckthorn branch (*Condalia lycioides* var. *Canescens* ((Gray) Trel.), 2 cm. in diameter, 65 cm. long, with one end cut wedge-shaped.[2] The soil is loosened to a depth of 20 cm. and eight or ten kernels dropped in. Before putting the corn in the first hole, the planter prays:—

[539]

mĕdjpák	teyădjmehána	owi
growing	corn good	I do it.

"Grow good: when your stalk grows, grow tall: grow like the mythic corn." Then he drops the kernels into the hole and chewing another, blows it toward the mythic corn, two white marks high on the canyon wall. These represent the two original ears given by the twin culture heroes.[3] Filling the first hole, he takes two short steps forward, kneels, and digs a second, and so on. The second row parallels this

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[114] [1] Coues, 348. A later statement (435), that tribes upstream from the Mohave lack crops, must be taken to mean that the Walapai and Havasupai had less than the Mohave.

[2] Cushing, (a), 550, notes the use of a planting stick provided with a footrest, but my informants denied this.

[171] [3] The Zuni also pray at the first planting [Cushing, (d), 175-179].

with holes opposite those in the first. (Actually the spacing is not very 243
regular). Thus groups of plants grow about a meter apart in both directions.
Fields are irregular in outline. Several men might plant one field,
the others following the leader's spacing. They do not repeat the invocation.
The land is irrigated about two days before planting. They begin 221
to plant in the middle of April and finish two months later; the precise 243
time depends on a man's whim. If corn is planted in the middle of
May the shoots will appear after four days, but later planting requires
five days. In a month it is half a meter high; it then receives a second
watering. When the tassel appears after two or two and a half months
it is given a third and last watering.[1] The attention required by the
growing crop is not burdensome; of course the fields must be weeded,
traps placed for the ground squirrels and rats who would otherwise uproot
the corn, etc. The hoe is a wooden spade-shaped affair with a 243
disproportionately long narrow blade with a handle in the same plane. [412]
This is used to scrape up the sand into ridges when irrigating and for
scraping out weeds. The shoulder blade of a horse (never a deer) is also
used for the latter purpose: this is held in the hands, not hafted. The
corn ripens in about four months. Plants bear two and sometimes three
ears to the stalk. Only the ears are collected, although the stalk with the
ears attached is sometimes taken (for fodder?).

According to Sinyella there were only two varieties of corn before
he was married (1860–70), then others were acquired from the Hopi. [177]
These two were *teyád̆jīpa*", with kernels mostly red with a little white,
and blue corn, both of which, but particularly the first, are accredited
to the culture heroes. The modern varieties recognized are white, red,
yellow, black, white and red (*n̦maavīghuwdla*), white and blue (*n̦msá'vīgvasú*),
all of which are named by color, and black and white
(*n̦údá*, spotted). A very small variety (*Zea amylacea*), with ears about
12 cm. long, known as Mohave corn, is also grown, yielding ears in two [439]
months. These have been traded from the Mohave through the Walapai. [177]
The blue corn is planted first, because it ripens quickly. Each color is
planted alone in a field, even in a large field which is given over to several
varieties. The colors of adjacent varieties mix, but no reason is offered
for this. One color is not preferred above another for its taste, but wafer
bread is made of either white or blue, but not of mixed corn. Long, well
formed ears are selected for seed. About twenty such are said to be
needed to seed an acre, but this does not seem enough.

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[1] Mr. Gensler, a first-rate farmer, tells me that this system of irrigation is proper; corn planted in late May matures in sixty to seventy-five days.

251
Corn is gathered in all stages of ripeness: the first edible ears are
243 welcomed after the winter's dry provender. Green corn is boiled, made
[252] into bread, etc. Green corn may be partially roasted in the husk by placing it in a roasting pit over night. The husk is stripped off and the corn dried. Such ears are boiled during the winter, when they have the taste of fresh corn. When the the ears are ripe and hard the crop is gathered by the men and women who planted it, with the assistance of any one who is willing to help. A woman breaks off the ears as she walks along, throwing them into the burden basket on her back. The corn is spread to dry in the sun, either on the roofs of the rectangular shades, against which ladders conveniently lean, or on heaps of brush around which little smudges of dung are built to scare off rodents. Corn is placed in the stone storage chambers either in the form of husked ears or it is shelled and heaped in a corner. Seed corn is husked and placed in a separate pile in the storehouse. Pumpkin, squash, watermelon, and sunflower seed are selected for sweetness, dried, bundled in a cloth, and set to one side in the chamber. When going up to the plateau for the winter, two small sacks of corn are carried along: they return for more as it is needed. The corn may be stored in three chambers: that in the first is eaten during the winter, that of the second during the spring planting period, and of the third, only a little may be eaten, not all. "We don't eat it all: we don't plant it all." This remainder is saved against the contingency
[731] of flood, etc.

Sinyella has five storehouses convenient to his fields; these were all emptied of the previous year's crop by the end of September. His family (p. 212) did not plant much this year as they have no women to grind their corn, so that only one storehouse will be filled. This is intended to supply himself, his four adult sons, and the five grandchildren. If this proves insufficient, more will be given them without compensation by West, his younger brother's son, who has plenty this season. Jess, who plants in his parents' field, stores his corn with theirs.

In former days two kinds of beans (*mádigá*) were raised, one a big
244 red variety, the other yellow. These were planted in the cornfields
on the same day as the corn, placed midway between the cornhills, 10–
12 cm. deep, four to a hole. Both crops ripen at the same time. Surplus
[251] beans are also stored in the stone chambers for winter food, leaving
enough to plant in the spring.

Squash (*hamtë'*) is planted like beans, at the same depth, four seeds
to a hole. Two varieties were known in Sinyella's boyhood, one large
and round, the other long. Squash ripens in October. It is brought
home by burden baskets full and piled up. The rind is hacked off with a
251 knife and the squash set aside to dry somewhat. The stem end is cut

away and the seeds scraped out and collected. After further drying, the 251
flesh is sliced spirally from side to side, beginning at the stem end, in a
strip 2.5 to 5 cm. in width. This coil, 1 to 1.5 m. long, is hung from a pole
to dry in the sun. While it is still pliable, it is folded back and forth on
itself into a bundle (*hamlekwï'līvá*), 30 to 45 cm. long, and bound with
one end of the strip. This is set aside to dry thoroughly before it is
placed in the storehouse for winter use. Squash so dried will keep
through an entire year. Melons are also grown.

Sunflowers (*dk'ölá*) are grown for their seed. Cotton (*Gossypium hopi* 241
Lewton) is raised from seed obtained from the Hopi; the only use for [249]
this product is in the strike-a-light. The seeds of wild food plants are [372]
not planted; some, such as pigweed, grow in the fields. Peaches and figs,
modern foodstuffs, are eaten fresh. Peaches are also torn in two and [251]
pitted, while figs are opened, before they are spread on the rocks to dry.

Two varieties of tobacco are known, *úvá*, and *kdθò'dn̦łu'vá* (Coyote's 249
tobacco; *Nicotiana trigonophylla* Dunal). Myth has it that the second
was grown by Coyote for his own use. Both grow wild on the plateau and
in the canyon above the village: their leaves are similar, but the smoke
tastes somewhat differently, according to the natives. Tobacco (both
varieties?) is grown only on the plateau. A mesquite tree is cut down
and burned. The tobacco seeds are thrown into the dead ashes (the soil
is not dug up). Willow is not used as a substitute.

WILD FOOD PRODUCTS

These are a valuable adjunct to the food supply, especially from the 221
autumn until spring during the residence on the plateau. During this 222
period they lead a wandering life, families going off in the fall to a place
where someone had reported piñon nuts lying plentifully on the ground;
winter finds them to the east, hunting in the Coconino Basin, dropping
down to the benches of the Grand Canyon in the spring for mescal, and
so on. Women and children are sometimes left to gather seeds while [462]
the men go off to trade.

Mescal (the agave plant), which grows on the canyon benches, is
ripe in May when the flower stalk is 30 to 60 cm. tall. The plant is
severed entire by pounding a chisel-shaped buckthorn stick (*tŏp'ŏ''l*) [412]
about 1 m. long, 3 cm. diameter, against its base. The outside leaves of 252
the inverted plant are trimmed of their green portion with a special
hatchet (*ágwidjá*). This consists of a broad stone blade set in a slot [412]
midway in the length of a short handle, 30 cm. long, (sometimes of piñon
wood), where it is held fast with glue or pitch and by lashings. A load of

252 thirty or forty plants is carried home. A pit (*maigáma''a; ámát*, ground) 1.5 m. in diameter, but of a lesser depth, is dug in sandy soil, not in gravel, else the steam would escape. Green or dry brush of any description is piled into the hole to the height of a meter above the ground; the uppermost brush must be dry. Stones the size of one's fist are spread over this to a depth of 10 cm. The pile is fired early in the morning, before sunrise. After three or four hours, when the wood is nearly consumed and the stones are red hot, several men (not women, because of danger from the flames) pound on the pile to reduce it level with the surface of the ground (?). Meanwhile women pile the mescal all around the pit to have it conveniently at hand. The pit is apportioned in sectors among several people; when the mescal is put in it, some plants are stood on edge to mark these divisions, the others are then packed indiscriminatingly in between. Long green grass, gathered by the women at the time the fire was started, is first carefully arranged over the plants, and then piled in to a depth of 5 cm. This is then covered with a layer of dirt, 15 cm. deep. It is now 8 or 9 a.m., depending on the quantity of plants. Forty-eight hours later the pit is opened, and grass spread over a convenient space to receive the roasted mescal.

Mescal paint (p. 197) is made from the dried juice which coats the
+386 stones. (The plants of the lowest layer have been burned black.) These stones are boiled for a few minutes to remove the sediment: the liquor is poured off and boiled until it thickens; then red paint is stirred in to thicken it further. After boiling longer the paint is reduced to a doughy consistency; the small quantity obtained is rolled into a ball.

The leaves of the roasted mescal may either be chewed at once to
252 obtain the pulp and juice, or they may be mashed and spread in a thin layer on an arrow reed mat to dry. When half dried the fibrous layer is turned over to dry further. While it is still flexible, one edge is folded back and the opposite edge folded over to meet the crease. This prepara-
[251] tion (*via'l*) will keep indefinitely; it is soaked in cold water for an hour to make a sweet drink.

Arrow reed mats (*ălakwiwă; ălă'*, arrow reed) measure 110 by 80
285 cm. and 75 by 60 cm., the first dimension being the length of the reeds.
251 Thongs or sinews are twined through the reeds at half a dozen points. Mescal and yucca products, peaches and figs, are spread to dry on such mats.

222
252 The leaves of the young plantain (*'ok'ī'să*) are boiled and served as we do cabbage.

The fruit (*hatá'e*) of the prickly pear cactus (*ăldvă*) ripens at the same time as peaches (September). The spiny fruits are broken off

with tongs, rolled about on the ground with a bundle of brush, and 222
finally rubbed individually with a rag to remove the spines completely. 252
A burden basket full is carried home, the fruits opened and spread out to 251
dry; sometimes the seeds are removed. When desired these are soaked for a few hours and squeezed to make a sweet decoction.

Mormon tea furnishes a drink: the stems are dried in bundles. [272]

Mesquite pods (*iyá'a*) are ripe at the end of September. There is but one way to prepare them. They are gathered when dry and pounded on the grinding slab. The excessively hard seeds are winnowed from the ground pod. The latter is stirred into cold water and allowed to stand for several hours. This drink is stirred before it is imbibed. The pods, being sweet when dry, are often chewed at odd times.

Yucca fruit (*ámönö't*) ripens on the plateau at the end of September. A layer of this is spread on a bed of dry sticks, a meter in diameter. The sticks are fired until the rind of the fruit is burned black, when they are removed with the tongs (*sálác'*), and thrown into a pile, on which water is sprinkled. The burned rind is removed, and the seeds, separated from the pulp, prepared by mashing with a mano. The flesh is spread to dry in a layer, 1 cm. thick, on a carpet of Mormon tea sprigs: this sheet is folded for storage. All drying fruits will spoil if exposed to rain. This preparation will keep for half a year. Bits of the sheet are broken off to eat dry, or they may be boiled.

A variety of seeds are gathered: a partial list includes pigweed (*ágwalvĕ*); goosefoot (*ilciyáddj*); *sllĕ''ĕ, göld, i'ĕla* (all three unidentified): juniper berries (*ádjuqá*), and piñon nuts. Sprays of ripe pigweed and goosefoot are allowed to dry for a week; the pods are then rubbed between the palms into a tray basket so that the seeds may be winnowed. These are roasted in the parching tray and ground. Half a kettle of water is brought nearly to a boil and the meal stirred in to make a mush. Pigweed leaves are boiled with salt, sometimes with cornmeal added, and eaten like cabbage.

Sllĕ''ĕ grows only in open glades on the highest part of the plateau. The 222
harvester walks along with a small burden basket in her left hand into 252
which she raps the seeds with a seed beater (*sllĕ'ários; ários*, to beat), emptying the smaller into a larger burden basket on her back from time to time. The seeds are ground, although they are unripe, and stirred into boiling water to make a thin gruel. They are sometimes parched, ground, and eaten dry with bread.

The seed beater is used only in this connection. It is a flat scoop 285
of wickerwork (Fig. 3). The warps are doubled at their midpoints: at 412

285 412 intervals twigs cross these which are bent down the sides of the scoop to the handle, where all the loose ends are bound together. While the specimen at hand has a thong drawing the tip toward the handle, it is probable that this was intended to hold the beater in shape only until the green twigs dried.

Garcés records that beside mescal, juniper berries were eaten.[1] 222 252 Piñon nuts, which ripen in October, are parched and ground (without removing the shells); the ground meat is spread on bread. The nuts may also be ground without parching and stirred into boiling water to make a thin gruel.

[285] [412]

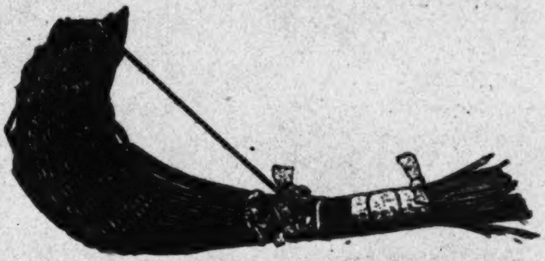

Fig. 3 (50.2-1575). A Seed Beater.

263 [222] Wild bees hive in dead logs and the flower stalks of dead mescal. Parties of children go out, picnic fashion, to gather the stalks, split them, and collect the honey. Rock salt (*iiñ'i*) is collected from a cave in the [917] cliff on the south side of the Colorado, where there are stalactites of it. This is ground. Much less than we are accustomed to is used.

Hunting

224 [262] Hunting is a man's second occupation, for he relies mainly on his field products. Flesh is part of the dietary the year around, but particularly during the fall and winter when they reside on the plateau. Antelope, mountain sheep, and deer are said to abound in the order named, while cotton-tails, jack-rabbits, and squirrels are plentiful. Hunting in the gorges of the Grand Canyon is really a hazardous enterprise. One instance was recorded of a wounded ram charging his pursuer and hurling him from a narrow ledge. Yet killings are sometimes tame affairs: one man standing at the door of his house shot a mountain sheep but a hundred meters away. They frequently descend the canyon close to the village.

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[1] Coues, 344.

Boys are trained for the chase by precept and example, beginning in 224 their ninth or tenth year; for success is far more dependent, in the native [868] mind, on skill than on supernatural aid. Nevertheless charms are used and taboos heeded. Occasionally a calculus (*gwuyidid*, deer —), sometimes as large as 5 cm. in diameter, is found in the paunch of a deer. This, the only charm known, is carried to the hunt on a thong hung about the neck. It proves fairly effective for deer, but for deer alone (?). One specimen (50.2–1629) is roughly wound with a reddened buckskin strap. Its elderly owner attached so much value to its powers that he has even guarded it from the eyes of fellow tribesmen. (Sinyella, for instance, has seen it but once.) He has repeatedly refused to sell it, even to a Navaho shaman who offered a horse. When he surrendered it to me, he was visibly moved: "You are taking my heart." Sinyella has one, 2.5 cm. in diameter.

> I always carry this in my pocket when hunting deer, antelope, or mountain sheep, in order that they stand looking at me unsuspecting while I approach. When I have this I can secure plenty of big bucks; I need many buckskins. If a man dreamed of seeing many deer, I would give it to him to carry on the hunt. I found this last winter, but I have not hunted much since. Perhaps other men have them, but I do not know. Not all deer have these in their paunches. I do not know how they are formed.

Luck is acquired in dreams (p. 332), for a man may obtain the 224 success prefigured there, although there is no certainty. One who dreams 787 of a successful hunt will try his luck; any success within a short time is ascribed to the promise of the dream. The causal sequence does not weigh greatly. Jess, for instance, has dreamed on occasion of fawns passing near him, whistling as they went. He followed the fresh tracks in his dream. Yet, when he failed to find such signs when he went hunting afterwards, he thought no more of it.

Prayers to the sun and a definite magical procedure, of which Sinyella 224 gave the following account, are prescribed before the hunt 782 commences. 539

> Long ago Mountain Lion and Wolf were men. They went hunting for deer every day, but tried many days without finding any. So they thought, "We have not found any. I wonder why. I will think out how I can kill them." So they said something that they might find them easily. Then they said, "We two ordain this. A man should bear in mind what we have said, then when he is hunting, but finds no game, he may repeat it and forthwith attain success." Men know of this today. When a number of men are going to hunt, the big chief issues directions. "We are all going to hunt. One of you should go a long way, two or three miles, just before it is daylight. There you should gather some old deer droppings in a pile, and set them alight until they are entirely consumed. When the ashes are cool, we will all go there."

224 782 539 When they reach the appointed place, the chief and each of the others touches his finger to the little heap of ash and makes a mark at the corner of his mouth. Then the chief prays, addressing the rising sun:—

myéñyákédjá	pá'ámáhágá	tyúdjè
Sun, my relative	look at us	that is why I am here
pá'ámáwiwukÁ	djipaimänh itová	má'úvukÁ
you should gives us	your domestic animals	let us see them quickly
hné'ᵘdja°ákÁ		
we want to kill some.		

So he talks to the sun: then some of the hunters kill many deer,

224 [833] On the other hand, sexual intercourse would interfere with the pursuit, for the animal would readily get wind of his pursuer or the latter would not be able to see any game. A man would therefore wait two or three days and then bathe before he went hunting.

Hunters sometimes wear a disguise when stalking antelope, deer, or mountain sheep (*ámauldjuwóvigá*, *ákwagádjuwóvigá*, *ámudjuwóvigá*, antelope, deer, and sheep stalking). The stuffed headskin of an antelope is worn on the head, while the body is painted pink and white to resemble that animal. Mimicking its actions, the hunter approaches within ten or fifteen meters before he lets fly. A deer head, similarly prepared, but with the addition of willow branches for horns, is worn together with a buckskin coated with ashes to represent the hide. When stalking mountain sheep, the same body disguise is used but the headpiece is the stuffed headskin of an ewe with horns of stuffed buckskin added.

These animals are also driven to localities where they may be conveniently shot. There are a number of places on the cliffs where an animal trail passes around a projecting point, so that they must proceed in single file in order to pass. The hunters build a low semicircular rampart of stones overlooking this place, in which the best shots may crouch with arrow fitted to string. Others drive the animals along the trail; by preference this should be a large party, for the animals are difficult to head off once they turn back. Those in ambush agree that one will shoot the first to appear, another the second, and so on. Game is also driven on to the point of a plateau, at the entrance to which bowmen have been stationed, some at each side and some in the middle. Other men are located at the tip of the promontory to drive the animals back for a second shot. Sometimes they are driven directly over the cliff. The brush and grass is sometimes fired to aid in these drives.

The carcass of a deer struck down by a mountain lion may be taken for food by the old men, but not by those with young children (p. 283).

The manner of butchering a deer is stereotyped. To remove the 253 hide, cuts are made encircling the neck just back of the head, down the belly to the tail, inside the legs, and around the hocks, taking the tail with the hide, but leaving the head and hoofs on the carcass. If the headskin is desired as part of the hide, the belly slit is continued to the lower lip, and additional cuts are made around the base of the antlers, then on a line joining them, and from this line down the middle of the face to the upper lip. The skin is folded flesh side in to prevent it drying out while it is being carried to camp. One who kills a deer owns its hide 224 and flesh, but he is obliged to give certain portions to those who accompany him, should they want them; to wit, both hams (cut close to the spine and well down on the leg) and the rib section. He reserves for himself particularly the skin and the section along the backbone containing the long tendons. This is said to divide the carcass into four equivalent portions. Anyone may have the legs and viscera which remain. Brains and marrow from the spinal canal are collected for tanning, [237] antlers to furnish picks for digging clay and flaking punches for arrowheads, dewclaws for rattles, and sinews for bowstrings, sewing, etc. Mountain sheep horns are taken for ladles and arrow wrenches.

Cotton-tail and jack-rabbits, coyotes, and wildcats are tracked in the [281] snow for the sake of their pelts which furnish warm robes and bedding.

I (Sinyella) used to stay in Coconino Basin in the winter. I was then a grown man. There was a little snow covering the ground. I and another man went out to hunt deer on the plateau. We saw no deer tracks but we found those of a bear. We followed them and after a short distance we saw the bear walking ahead. We followed him: he did not turn around. We hid behind a big dead cedar tree which was lying on the ground about fifteen meters from where the bear stopped. The bear did not turn around: he was busy digging up the ground. First I shot at him with a gun and the other man shot too; we both hit him and he fell dead. We waited a little and, as the bear did not move, we loaded again and approached quietly pointing the guns at him. When we were within a few yards of the bear, which lay still, we both shot again. Then we took hold of his leg gingerly and pulled it. We said, "It is dead," and then we skinned it. We did not eat the flesh, just carried the skin home. We kept it, but did not know what to do with it, so eventually we threw it away. A long time ago the old folks ate bear meat, but I never saw it eaten in my lifetime. [262]

I killed three bears. The second occasion was when I wanted to go and see the new town of Williams; there were few houses there. When we were west of Red Lake -- there were four or five men -- we wanted to stop and hunt deer in the little mountains. Two of us went right to the top of a little mountain; we took up a position where the deer trails crossed. We wanted some of the others to go around the far side of the mountain, where, by making a little noise, they could chase the deer to the spot where we were waiting. We had been there only a little while, when we heard something running toward us. We thought perhaps it was a buck. Then we saw it running out of the trees. It was a bear; he was coming straight at us. We felt afraid

224 and wanted to run, but we were rooted to the spot. Then the bear ran right by us and I shot him in the side. He went on and the other man a little way behind me shot him again, but he went a little further before he tumbled over. We took his hide and told B—— who bought it for $5.00.

The third time I was down near Black Tank (near Seligman) about the time *sit'i*'s seeds were ripe. There were a lot of people gathering them. These people said that they would like to go hunting antelope. Quite a number went out to the south of the mesa (toward Seligman). A long way off they saw three bears: one was digging the ground, while the others were sitting by, watching. I said to the others, "I have the only good running horse; I will go alone to shoot them." I wanted the others to tie their horses to the trees and I told them to climb tall trees to watch me shoot. Then I went off. The others did as I told them, while I went by myself. I circled around back of a hill. I tied my horse to a tree and went toward the bears. They did not see me, although I was only fifty meters away. I sat down behind something and shot the biggest one, hitting him in the ribs. He growled and grabbed the little bear and threw it to one side; then he did the same to the other seated on the other side. I went right back and mounted and showed myself to the bear. When the bear saw me, he rushed at me. I whipped my horse and ran with the bear running after me. The bear nearly caught me: I thought my horse was a pretty good runner, but the bear was only a little way behind all the time. So we ran for a long way, when the bear began to tire, so that I drew a little further ahead. When I was quite a long way off, the bear stopped; so I stopped too, and turned my horse and sat there watching him. Soon the bear walked slowly to a big cedar tree and lay down in the shade. Then the other men came toward me, but I shouted to them. "You stop and wait there: the bear is lying down." The others all came and stopped; came on again a short way and stopped again, until they got to me. Then we all went toward the bear; I was a little ahead. "If, when I get close to the bear, it is not dead, but gets up and chases me, I will come back to you," I told them. I went close and found that the bear had been dead a long time. The bullet had gone right into his ribs. We merely looked at him, but we did not touch him. Then we went home.

This month (October) there is no snow: next month when the moon is half full, it will snow. It was like this month when I and Jess were over at *Djópaθaáá'gá'ma* (Apache Spring, near Ash Fork). It was snowing a little. We were hunting deer, when I found mountain lion tracks, which I followed until I saw the lion. I was riding my horse. I chased him; he circled around to the spot I first saw him. I killed and skinned him, and packed the skin and meat to camp. That day we killed two. Next morning Jess brought his lion hide over to my camp. We took them to town and sold them.

Squirrels, raccoons, and wildcats are hunted for their flesh. Mountain lions are also eaten by the older people.

Rabbit drives are attended by all the available men and boys. There is no special hunt leader. They drive in a straight course, not by drawing in a circle, for they say that there are too few individuals for a surround. The animals are shot; never clubbed.[1] The hunt has no esoteric significance.

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[1] While the Hopi curved rabbitsticks ([illegible], rabbit—) and the Walapai drive nets ([illegible]) are known, they are not used.

Rabbits are also tracked in the snow to their refuges in hollow logs, 224
etc., whence they are drawn with a straight poker (*haloal'widid*) corresponding to the crooked stick of other tribes. This is a thin pointed stick [411]
more than a meter long, nicked for a distance of 10 cm. at its tip. When thrust into the log, it is twisted about until these barbs catch in the rabbit's fur. When the rabbit is drawn out, the hunter locates the heart, pinches it, and with a sharp yank ruptures it.

Traps are placed on the rodent trails in the fields and near storehouses to catch the squirrels and rats which root up the corn, tear their way into the storehouses, etc. Snakes and birds are sometimes found in these devices, but no attempt is made to trap or snare larger game. A stick rests in the fork of an upright stick, 25 cm. long, with one end propping up the deadfall weight, a large flat stone (Fig. 4). A cord tied to its other end has a short stick attached to it. The cord is carried half around the upright, so that one end of the short stick rests against it. The trigger stick is propped between the stone and the other end of the short stick; the tension of the cord holding it in unstable equilibrium. The trap (*gwen'ánia*, something ——) is placed on the trail, with wings of brush arranged so that the rodent must pass under the deadfall. It is baited with dried peaches or mescal pulp tied firmly to the trigger.

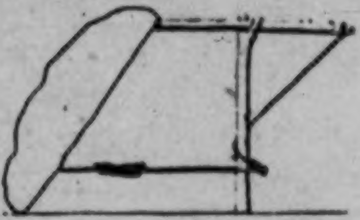

Fig. 4 (50.2-1228). A Rodent Trap.

Turkeys, found on the plateau, especially near Pine Spring, doves, [223]
and quail, as well as the eggs of the last are taken for food. Other birds and their eggs are not eaten.[1] Fish are not eaten.

Dogs are sometimes used in hunting, for driving rabbits into hollow logs whence they could be chopped out, or for following wounded deer over hard ground. The dog is loosed on the trail, to pursue and hold the

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[1] Unlike the White Mountain Apache, the Havasupai do not build fires under trees in which doves and quail roost in order to club the dazed birds.

224 animal at bay. They are bred to furnish good hunters, and castrated.[1]
[232] Dogs are called by name; such as *walwadá*, labia minora (a male dog), *gï'a,likéwaid*, referring to age, the dog having gray hair, and *idéa*,
552 painted (a brown dog with white patches.) Any dog is called to *'gaiyá, ságá, ságá*, dog, come, come, and driven off with *sai'*, *sámigá*, go away.

PREPARATION OF FOOD

Primitive peoples have more methods of preparing their food than
252 they are commonly credited with. The Havasupai, for instance, have innumerable ways of preparing corn, only a few of which—the result of casual observation—are recorded here.

The grinding slab, on which nearly all wild and cultivated seeds are
4/2 ground, is roughly rectangular, 80 by 50 cm., by 10 cm. thick. A smaller slab, carried with a moving camp, is 60 by 30 cm. A shallow oval, but
[324] nearly rectangular, depression is pecked in one face with a hammerstone. The stone of which they are made is so taugh that the process of producing a proper trough is very lengthy: on this account they are highly prized. The mano (*va'ha'djá'a*) is roughly a prolate spheroid, 17–22 cm. long, with short diameters of 7.5 and 10 cm. The woman sits in front of
252 the slab which rests flat on the ground, with its face slightly tilted toward her. The corn, beans, etc., are first pounded with the end of the mano, and then crushed with a pounding, rocking motion of the stone. The meal is brushed off forward with the side of the hand into a tray basket. The chaff is separated by swinging the basket, throwing its contents into the air, and at the same time blowing off the lighter particles.[2] The clean meal is then replaced on the slab to be pulverised by grinding with an additional slight rocking motion, forward and back, and to a lesser extent sideways. There can be no doubt that the shape of the metate depres-
4/2 sion and mano among Indians in general is in part the result of the miller's movements. When not in use, the grinding slab is turned upside down with one edge resting on the mano to keep it clear of the ground. A brush is used for cleaning the metate. This is a bundle of mescal leaf fiber, 20 cm. long., bound with a cord for a distance of 4 or 5 cm. at the center.

Stone mortars (*'wiguetu'tiá*; *'wi*, stone, *giva*, something, *tútid*, to
[252] pound) are also used for pounding corn, piñon nuts, or dried meat. These measure 15 to 20 cm., with a hollow 10 cm. in diameter. The pestle (*va'ha'djá'a*, mano) is also stone.

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[231] [1] Dogs are not used for transportation, nor eaten so far as I know. The dogs of sixty years ago are said to resemble those of today, which in turn are in general similar to the North American hounds figured by Allen. Is it possible that they are relatively unmixed and therefore worth study?

[2] Illustrated in Mason, O. T., (b), Plate [illegible].

1 [i.e., hunting dogs.—Analyst]

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Seeds of all descriptions are parched not only to roast them, but to 252 dehydrate them somewhat, rendering grinding easier. The kernels of corn, etc., are tumbled about with live coals in the parching tray by a swinging, sinuous, rotary movement. Finally, the lighter charcoal is separated from the grains with the same motion, throwing it up from the far edge of the tray and blowing it away. Any charcoal that remains is picked out.

Cooking is usually done in the clay vessels (*hamdiuguetadlid; hamdi*, clay pot) but boiling (*tulámigd*) in baskets is carried on at the same time. [415] Small stones, heated red, are dropped, with the aid of a tongs, into a basket filled with water. These are replaced by others when cool. The food is stirred in when the water is boiling; the remaining stones are picked out when it is cooked.[1]

Green willow tongs are used on hot stones, but better wood, such as ash, may be used in tongs for handling hot or prickly objects, stirring stews, etc. Tongs (*atido'*) are simply green branches, flattened on one 412 side, with a kerf at the midpoint, so that they can be bent double, and bound until dry. They measure 40 to 50 cm. long; a smaller specimen is 20 cm. Crooked sticks and convenient twigs are also used for stirring, 415 as forks, etc. Horn ladles are used in cooking as well as in eating.

A cooking vessel (*mälldigwöttdlámia*, cactus, something, boil) is sometimes improvised from the barrel cactus (*mälldl*, possibly *Echinocereus*) when on hunting expeditions. Occasionally the same device is used at home. The spines are burned off, one end cut away, and the pulp removed, so that it can be used for stone-boiling. "Wild cabbage" 252 (*dk'tat*), cornmeal, meat, etc. is cooked in this.

Green corn is usually cut or shelled from the cob and ground to a pulp on the grinding slab. Water is brought nearly to a boil before the corn is slowly added, stirring it into the water with a stick while the pot remains on the fire. When it comes to a boil, it is set aside. Corn is not boiled on the cob as a rule.

Green corn is cut from the cob, mashed, and boiled with unripe pumpkin cut into small chunks.

Squash flowers are boiled until the mass cannot be reduced further,[2] they are then fished out with a twig and mashed to a pulp on the grinding slab. Meanwhile green corn, cut from the cob, is boiling in the liquor. The pulp is then added and the whole is boiled to make a sweet dish.

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[1] Food is never cooked in a skin or a paunch.

[2] Cf. Lumholtz, (a), II, 192.

252 [251] Ears of green corn in their green husks are laid to roast on a small bed of coals, or buried in hot ashes, until the outer husks are thoroughly charred. The husks are stripped back, the ends of the cob trimmed clean, and the ears are tied in pairs by their husks to be hung up until some casual visitor comes by. Green corn is less commonly roasted in underground pits. The characteristic mode of eating corn on the ear is to break off the kernels with the thumb nail, catching them in the palm of the same hand. When the hand is full, these are poured off the side of the hand into the mouth.

Bread is made of green corn cut from the cob and ground. This pulp is moulded into cylindrical masses, wrapped in green cornhusks and baked in the ashes. When husks are removed the solid cakes may be eaten as bread.

For dumplings, cornmeal (*teyădjáldva*, corn, ground?) is kneaded into a stiff paste with hot salted water. The dough is rolled between the palms into cylinders, bits pinched off, and rolled into balls, 3 cm. in diameter. These are dropped into hot water and occasionally stirred while they boil a few minutes.

[171] Wafer bread (*bigá*, from Hopi *piki*) of cornmeal is baked in the characteristic Pueblo fashion on a flat slab (*ilcvahaiyádid*), a meter long and half as wide, supported over a fire. It is made either of white or blue corn, but never by mixing varieties.

Beans (*mádigá*) are parched before they are ground. Bean flour mush (*mádigídvá*, beans, ground) is made by slowly stirring the flour, into water that has been brought nearly to the boiling point. When the mush boils, it is removed from the fire.

Sunflower seeds are parched and ground, when they may be eaten with the sweet mescal drink or a decoction of dried peaches. Sometimes they are parched, mixed with parched corn, and ground fine; then it is eaten dry by the pinch.

Squash is boiled. The dried strips (*hamilĭtúpá*) are broken into bits and boiled until soft (*hamilĭtiáólá*); this is sweet. The rind is sometimes hacked off fresh squash, and the fruit cut into small pieces, discarding the seeds, before it is boiled; this is not sweet.

Squash, melons, peaches, figs, and even corn are eaten as soon as they show the first signs of ripeness, so glad are the natives at the appearance of an edible green. Unripe fruits cut off before they reach maturity, as by a flood, are not discarded, but furnish at least something succulent to chew on.

[251] Meat is sliced and cured by drying. It is usually necessary to pound it between two stones before it is cooked, and then it is commonly

stewed. It may be placed in warm water to simmer; then bean flour is 252 added to thicken the stew. Squirrels should be eaten fresh. The viscera are removed, and if it is to be boiled, the skin, head, and tail as well, but not if it is to be roasted. Rabbits are roasted in the ashes and possibly in roasting pits. Doves and quail are eaten, but only infrequently. 262 although they abound at harvest time. Only quail eggs are eaten.

Fish are neither caught nor eaten. (These live in the Colorado [226] but not in Cataract Creek.) Fish are not tabooed, but the Havasupai are afraid to eat them because they never have eaten them. Snakes, frogs, and lizards are not eaten; in fact, they mock the Walapai for eating the last mentioned.

Most cooking is done out-of-doors and meals are served there also. [252] The cooking vessels, trays of fruit and bread, and vessels of drink are 264 placed together on the ground. A vessel of ground salt stands near by, but very little is used, and practically none at all in the process of cooking. The whole family groups itself about these, within easy reach of the one or two *pièces de résistance.* Bits of meat are fished from the stews with fingers, twigs, or knives, while the mush is scooped or sopped up with a bit of bread, flat sticks, little horn and wooden spoons,[1] or even with three fingers. Eating manners are fairly decorous by our standards. Even small children help themselves, but forwardness, quarreling, and especially pilfering before meals, is met by sharp reproof. As a rule women and children eat with the men, but when there are male visitors, the former often wait their turn. In such a case, for example at a dance, the men leave a fair share of the food As a rule three meals are eaten during the day, but that at midday is somewhat inconsequential. The others are substantial; breakfast on rising, and the last meal after sundown. Everyone eats irregularly throughout the day, for to whatever camp one goes there is always cookery in progress; corn roasting, a load of peaches brought home, and so on. While considerable is eaten at each meal, no food is ever wasted, and the natives do not stuff. Those who have seen the Zuñi in the Hopi villages ridicule their habit of expressing thanks after a meal.

COMPARATIVE NOTES

Havasupai agriculture is one of the few traits shared with Pueblo 171 culture. The general distribution of cultivation through the Americas 241 is well known, but there has been no attempt at fixing its northern limits in the Southwest in detail.

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[1] Cushing, (a), 550.

In northern Mexico cultivation has been recorded among several
171 modern tribes: Huichol, Cora, Tepehuane, Tarahumare, Tepecano, and
241 Opata.[1] There are records of the Jumanos in eastern Chihuahua in 1582, the Guaymas, a southern Piman group near the Seri ("land-tillers on a very low scale"), and the Sobaypuris, Pimans on the Rio San Pedro.[2] Intensive agriculture is characteristic of the Pueblos.[3] It would be interesting to know the extent it was followed in such outlying communities as Taos and Picuris. Pima, Maricopa, Yuma, Cocopa, and two groups near the last, Talliguamayque and Cajuenches, Mohave, and Navaho raised crops in abundance.[4] The Havasupai and Papago are agriculturalists to a lesser extent, both subsisting in some degree on wild seeds. But cultivation is greater among them than among the Jicarilla, and Western Apache, Apache-Yuma, Chemehuevi, Shivwits and Kaibab Paiute, and Walapai.[5] These tribes mark the limits of agriculture in the west. It is known not to have extended into California, the Basin, or into the southwestern Plains. In fact for certain tribes in the immediate vicinity of those practising the art we have specific information that it is lacking; to wit, Mimbreños and Tonto Apache, Moapa Paiute, Akwa'ala and Halyikwama of Baja California, and the Seri.[6]

Perhaps irrigation was in all these cases part of the agricultural technique, but it is not recorded. It is the practice of all the Pueblos, the Navaho, Havasupai, Shivwits, Kaibab (?), Pima, Maricopa, and Cora. The Mohave utilization of the overflow of the Colorado corresponds to the planting of other tribes in dry washes or creek bottoms.

The planting sticks and hoes offer some comparative points. Plant-
171 ing sticks are of two types; one a straight stick having a wedge-shaped
412 point, the other similar but provided with a projecting footrest near the lower end. The first type is that of the Havasupai, Hopi, Pima, and probably Shivwits. The Zuñi use the form with the footrest, while the Navaho use both. The Havasupai hoe is one form of a general type: a flat stick with its blade and handle in one plane, approximating a weaving sword in shape, although there is considerable variation. This type is also used by the Pima, Mohave, Hopi, Navaho, and Zuñi. The last two also use a hoe like our own, a wooden blade or elk scapula set

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[1] Lumholtz, (a), 4; Bandelier, (a), 60, 93, 99; Bartlett, I, 444; Mason, J. A., (d), 185.

[2] Bandelier, (a), 88, 78, 101.

[3] Cushing, (d); Hough, (e), 235, 236, Pl. 19.

[4] Bartlett, II, 173, 190, 214, 232, 263; Pattie, 121, 131-2, 144; Russell, (d), 86-92; *Handbook of American Indians*, I, 920; Whipple, Ewbank, and Turner, 123; Kroeber, (a), 270; Letherman, 289; Franciscan Fathers, 204; Lipps, 56; Stephen, 354; Bandelier, (a), 104, 170.

[5] Gaillard, 283; *Handbook of American Indians*, I, 632; Whipple, Ewbank, and Turner, 120; Corbusier, 326; Lewis, (b), 200; Beale, 67, 68, 74, 78; Whipple, Ewbank, and Turner, 22, report agriculture as the main pursuit of the Chemehuevi, but this does not seem likely.

[6] Bartlett, I, 227; Whipple, Ewbank and Turner, 14; Kroeber, (h), 470; McGee, 190.

transversely at the end of a shaft. The Havasupai use a horse scapula 171
but without hafting it.[1] [412]

Cotton is raised by the Hopi, Tewa (except possibly Pecos and Taos), 171 x
Pima, Maricopa, Western Apache, and Tepehuane. It is not grown by 248
the Navaho, Zuñi, Acoma, or the Tanoan Pueblos.[2]

Tobacco is widely used in North America though it is not every- 171
where grown. In the Southwest and the adjacent territories its cultiva- 249
tion has been noted for the Zuñi, Hopi, Navaho, Havasupai, Yavapai, San Carlos, Pima, Southern Diegueño, and the Mayos of Mexico.[3] Smoking is known to have been customary among neighboring tribes, who did not raise the plant: Cocopa, Akwa'ala, Mohave, Gosiute, Paviotso, Washo, Wind River Shoshoni,[4] and generally in California. The Havasupai habit of planting in ashes without turning the soil is also the custom of the Hupa.[5]

Unfortunately, I do not know which species the common Havasupai
tobacco is. Its name, úva, however, is connected with Southern Diegueño 192
op (Nicotiana attenuata), Shasta ôp, Takelma ô"p', Crow ôp (N. multi-
valvis), Hidatsa ô'pe (N. quadrivalvis), probably Washo pinkur, and 171
possibly Pima viopal viofâ, "like tobacco" (N. trigonophylla).[6] There is a similar extension of the name "Coyote's tobacco" though again to distinct species; Havasupai (N. trigonophylla), Southern Diegueño (N. attenuata), and Pima (N. Bigelovii).

Mescal (agave) is gathered and roasted in pits by most, if not all, 171
the non-Pueblo peoples and perhaps by the Pueblo and Mexican tribes 222
as well. It is an item of some importance for the Jicarilla, Mescalero, 252
White Mountain and San Carlos Apache, Navaho, Havasupai, Paiute, Yavapai, Pima, Cahuilla, and Huichol.[7] It would be worth knowing how far this distribution corresponds with that of the plant. Pit roasting is probably absent from the Basin and the Plains, and from California except among the southern desert tribes. But much farther north, in the Plateau and adjacent sections of the Northwest Coast, it is the characteristic mode of preparing roots. The mescal cabbages are probably
always pried off with a chisel-edged stick (Havasupai, White Mountain [412]
Apache, and Pima) and trimmed with the peculiar hatchet (Havasupai,

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[1] Cushing, (d), Pl. III, 204; Russell, (d), 98, 97; Franciscan Fathers, 263-6. Mohave specimen in the Anthropological Museum, University of California.

[2] Spier, (f), 80.

[3] Mitchell: Curtis (XII, 29) denies that the Hopi plant tobacco; Corbusier, 328; Russell, (d), 119; Spier, (a), 248; Bandelier, (a), 49; Goddard, (e), 268.

[4] Lowie (h), 215; Kroeber, (a), 288.

[5] Goddard, (a), 27.

[6] Lowie, (f), 178. Washo name from Doctor Lowie, 1922.

[7] Goddard, (e), 143-149; Curtis, I, 17-19; Palmer, 647; Corbusier, 327; Russell, (d), 70; Barrows. Lumholtz, (a), 13.

171 222 [252] [412] White Mountain and San Carlos Apache). Like the Havasupai, the Yavapai and White Mountain Apache dry it in large cakes on a layer of sticks and make a concoction of the dried product.

The method of harvesting wild seeds by beating them with a scoop into a basket held in the free hand is characteristic of the Basin tribes and those in adjacent California and Arizona. A woven seed-beater is used by the Kaibab Paiute, Panamint, Paviotso, Gosiute, Ute, Northern Maidu, Klamath, Modoc, Achomawi, Atsugewi, and Cahuilla. The Northern Shoshoni and Salinan substitute tray baskets for these; the Western Apache and sometimes the Salinan a stick. The Yavapai also gather the seeds in the characteristic manner.[1] There are differences in the shape and technique of the beater which would repay investigation. 171 412 222

A number of tribes share a definite procedure prior to a deer hunt which corresponds to the Havasupai meeting at a fire and praying to the sun. The Huichol obtain power from a fire on the evening before the hunt; Luiseño hunters stand in the smoke to be freed of the effects of any breach of social observance. The Maidu meet at a fire to offer to the spirits; the Achomawi and Atsugewi have a ceremony in the evening of the first day of the hunt at which the leader chews roots which he throws toward the mountains. Bourke states that the Paiute and Walapai (but not the Mohave) sing and dance before a deer hunt, but he does not specify the procedure. There is at least a partial analogy in the Western Apache sprinkling pollen and praying to the sun.[2] The Tepecano and Hasinai also have special observances.[3] 171 224

The Havasupai also hold continence a prerequisite for success in the hunt. This is true of the Huichol, Paiute, Walapai, Maidu, and is at least suggested by the Luiseño data. It may be general. [833]

I do not know that the deer drive of the Havasupai constitutes a definite type. Driving them into a *cul de sac* or over a cliff may be very common. It has been noted for the Navaho, Yavapai, Maidu, and Gosiute.[4] The chute-and-pound method is widely distributed over the Basin-Plateau and Plains, but is unknown to the Havasupai.

The use of a deer head, or that of an antelope or mountain sheep, as a disguise in stalking is a rather widespread practice. In the west it is recorded among the Mimbreños Apache, Navaho, Zuñi, Hopi, Havasupai,

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[1] Powell, 12[illegible]; Coville, 353; Lowie, (h), 234; Chamberlin, 341; Mason, O. T., (a), 480; Dixon, (a), 180; (c), 212; Barrett, (a), 257; Kroeber, (g), 45; Lowie, (n), 187; Mason, J. A., (a), 130, 143; Bourke, (d), 131; Corbusier, 328.

[2] Lumholtz, (c), II, 40, 41; Sparkman, 199; Dixon, (a), 193; (c), 213; Bourke, (a), 178; (e), 802, 804; (c), 438.

[3] Mason, J. A., (d), 135; Bolton.

[4] Stephen, 257; Franciscan Fathers, 475; Matthews, (d), 230; Corbusier, 328; Dixon, (a), 193; Chamberlin, (b), 335.

Yavapai, Luiseño, Salinan, Maidu, Achomawi and Atsugewi,[1] Kombo 171
(Yana or Yahi), Paviotso, Wind River and Lemhi Shoshoni, Chop- 224
punish (a group at the eastern edge of the Nez Percé reservation), and Crow.[2] There are doubtless others.

Communal rabbit drives are probably very common in the Southeast and the Basin, but records of the fact elude a search. They are recorded as the practice of the Navaho, Acoma, Zuñi Hopi, Havasupai, Yavapai, Pima, Southern Diegueño, Luiseño, Shivwits, Gosiute, Paviotso, Washo, Northern and Southern Maidu, Achomawi and Atsugewi, and probably Walapai, Mohave, Uintah, and Salinan.[3] There is some variation in the procedure: the Paviotso, Havasupai, Yavapai, and Hopi hunters form in a line and drive in a straight course; the Shivwits, Navaho, Pima, and again the Hopi form a circle. The Washo, Paviotso, and Shivwits have a special director of the hunt; the Havasupai do not.

The rabbits are frequently driven into nets: Walapai, Mohave, Southern Diegueño, Luiseño, Salinan, Shivwits, Uintah Ute, Paviotso, Washo, Northern Maidu, Achomawi and Atsugewi. This distribution omits the Southwestern tribes, except for those on its western fringe.

The characteristic curved rabbit club was not in universal use. It is 171
the weapon of the Hopi, Zuñi, Navaho, Mohave, Southern Diegueño, 411
Luiseño, and Cahuilla. The Zuñi, at least, also use straight billets of 224
wood. Several others are known to use clubs of some sort (Yavapai, Pima, Western (?) Apache, Achomawi, and Atsugewi) but the Shivwits and Havasupai use none at all.[4]

Many tribes in this area use a stick provided with a crook to draw rabbits and other rodents from their hiding places. But it is recorded only for the Yavapai, Tonto Apache, and Shivwits Paiute. I have also a recollection of seeing this tool among the Navaho, but a Havasupai informant referred to the use of a straight stick provided with little barbs like their own. The same straight stick is used by the Zuñi and probably as a second type by the Shivwits.[5]

The Navaho use a trap identical with that of the Havasupai, and 171
this is true of the Hopi, if I correctly interpret the description given by 224
Mason based on information from Hough.[6]

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[1] Cremony, 20; Franciscan Fathers, 275; Matthews, (d), 217; Stevenson, M. C., (b), 439-441; Hough, (e), 285; Corbusier, 328; Sparkman, 197; Mason, J. A., (a), 124; Dixon, (a), 192, [illegible] 212.

[2] Powers, 271; Lowie, (i), 197, 199; (a), 185; Lewis and Clark, IV, 371; V, 38, 40; Lowie, (b), 210.

[3] Franciscan Fathers, 324, 470; Sedgwick, ch. 11; Bourke, (e), 345; Hough, (e), 174; Corbusier, 328; Russell, (d), 80; Spier, (d), 337; Sparkman, 198; Lowie, (i), 196-199; Powell, 127; Chamberlin, (b), 236; Barrett, (b), 11-12; Dixon, (a), 195; Faye, 38; Dixon, (c), 213; Whipple, 115; Mason, J. A., (a), 143; Mason, O. T., (c), 208.

[4] Hough, (e), 285, 287; Mohave specimen in the Museum of Anthropology, University of California; Barrows, 50; Bourke, (b), 60.

[5] Corbusier, 328; Smart, 418; Powell, 122; Cushing, (d), 501; Lowie, (i), 196.

[6] Franciscan Fathers, 322; Mason, O. T., (j), 472.

1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

171 The grinding slab or metate of the Pueblos is also found in Southern California and the Basin. Among the non-Pueblo peoples it is used to
412 some extent by the Pima, Navaho, Havasupai, Yavapai, Mohave,

[102]
[415]

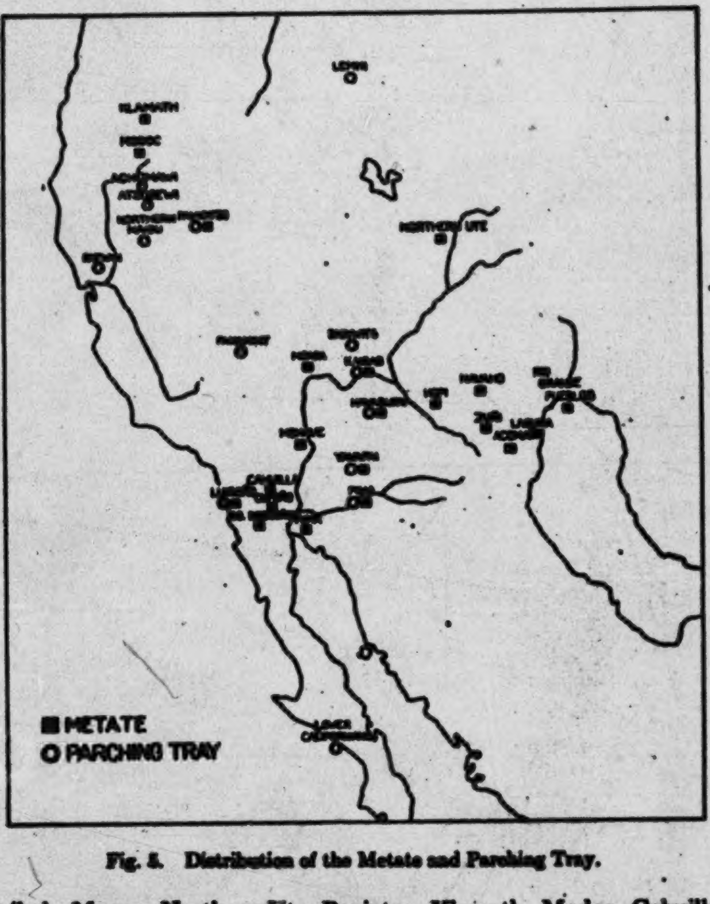
LEMHI
KLAMATH
MODOC
ACHOMAWI
ATSUGEWI
NORTHERN MAIDU
PAVIOTSO
NORTHERN UTE
PANAMINT
SHIVWITS
MOAPA
KAIBAB
HAVASUPAI
HOPI
NAVAHO
RIO GRANDE PUEBLOS
ZUÑI
LAGUNA
ACOMA
MOHAVE
YAVAPAI
CAHUILLA
LUISEÑO
PIMA
LOWER CALIFORNIANS
▨ METATE
○ PARCHING TRAY

Fig. 5. Distribution of the Metate and Parching Tray.

Kaibab, Moapa, Northern Ute, Paviotso, Klamath, Modoc, Cahuilla, Cupeño, Luiseño, Southern Diegueño, Yuma, and undoubtedly by others in their vicinity.[1] Most of these people, if not all, use stone or wooden

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[1] Russell, (d), 69, 108; Hrdlička, (a), 44; Franciscan Fathers, 63, 210; Corbusier, 336; *Handbook of American Indians*, I, 921; Powell, 127; Lowie, (i), 204; Barrett (a), 252; Kroeber, (g), 49, 51, 56; Sparkman, 208; Spier, (a), 334; Trippel, 370.

mortars as well. Mortars are the characteristic utensil of the central 171
Californian tribes and those of the northern Basin.[1] As might have been 412
anticipated from their geographic position some of the western groups apparently favor the use of mortars rather than metates: Pima, Diegueño, Luiseño, and Cahuilla. (Fig. 5.)

Parching seeds by tumbling them about with live coals in a shallow 171
basket is a method widely used among Californian, Basin, and the
western rancheria peoples of the Southwest. It is recorded for the Hava- 252
supai, Yavapai, Pima, Kaibab and Shivwits Paiute, Panamint, Paviotso, Lemhi Shoshoni, Lower Californians, Luiseño, Patwin, Northern Maidu, Klamath, Achomawi, and Atsugewi. (Fig. 5.) The Pima also cook in this fashion using a shallow pottery vessel. The Lower Californians sometimes substituted a turtle shell. Doubtless many others shared the practice: the Salinan, at least, did not.[2]

Wafer bread is a familiar Pueblo product, probably in use in all the towns, but certainly among the Hopi, Zuñi, and Acoma. It is also prepared by the Havasupai and Navaho but is not known to the Pima.[3]

Fish is not an article of diet of many of the Southwestern rancheria 171
people. This is not altogether a matter of the absence of fish, for they
must be at least as abundant as in the Basin where they are eaten. 262
There is a definite taboo ranging from the horror of the Navaho to the mild sentiment of the Havasupai. These tribes include all the Athapascans, (except the Lipan), the Caddoan Taovayoses, the Havasupai, Walapai, Yavapai, and Zuñi. Outside of this restricted area fish are eaten: Cochiti, Lipan, Hasinai, Pima, Cora, Tepecano, Seri, Southern Diegueño, Apache-Yuma, Mohave, Yuma, Cocopa, Washo, and all the Basin Shoshoneans.[4]

With regard to other tabooed animals little can be said because of the fragmentary nature of our information. Lizards are not eaten by the Havasupai, Mohave, Pima, Salinans of San Miguel, the Shoshoneans of Kern River, and the southern Yokuts. But the neighboring Yavapai, Walapai, and Paiute did not despise them, while in California, the northern Yokuts and the Miwok eat most reptiles.[5]

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[1] Cocopa (Chittenden, 203); Mohave (Whipple, 115); Salinan and Yokuts [Mason, J. A., (a), 127-128]; Washakie Shoshoni and Fort Hall Bannock [Lowie, (a), 174].

[2] Corbusier, 320; Powell, 120f; Lowie, (i), 234; (k), 136; Coville, 353; Lowie, (a), 178, 198; Baegert, 366; Sparkman, 193; Powers, 220; Dixon, (a), 189; (e), 212; Kissell, 104; Russell, (d), 66; Mason, J. A., (a), 120.

[3] Stevenson, M. C., (b), 361; Cushing, (d), 333; Sedgwick, Ch. II; Franciscan Fathers, 205, 207; Russell, (d), 68.

[4] Goddard, (e), 1st ed., 130; Matthews, (e), 106, 107, 110; Kroeber, (a), 276-277; Dumarest, 140; Corbusier, 320; Russell, (a), 83; Hrdlička, (e), 45; Whittemore, 36; *Handbook of American Indians*, I, 348; Mason, J. A., (c), 340; McGee, 183; Spier, (d), 338; Trippel, 574; Chittenden, 201; Lowie, (i), 200; Mooney, (b), 1050, 1052; Lipps, 42; Stephen, 357; Franciscan Fathers, 214, 507; Matthews, (d), 230; Bolton.

[5] Kroeber, (a), 277; Russell, (d), 83; Mason, J. A., (a), 122; Corbusier, 320.

MANUFACTURES

BASKETRY

Baskets are the most important domestic utensils. A dozen or so
415 may be found in each household; two or three burden baskets, half a
dozen trays holding foodstuffs, one or two parching trays, a water bottle
or two, and in the old days, boiling baskets. Basketry is entirely women's
285 work, to which they devote most of their spare time, particularly the
476 long midday period when household duties are light. Wherever women
[461] gather, basketry may be seen; the hostess working at her products, the

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[482]

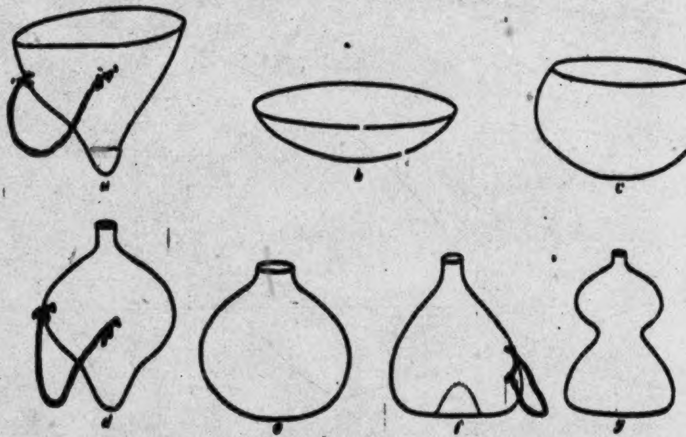

Fig. 6 a (50.2-1634), b (50.2-1651), c (50.2-1250), d (50.2-1237), f (50.2-1643), g (50.2 1645). Havasupai Basketry Forms, a, Burden basket; b, Tray; c, Boiling Basket; d-g, Water bottles.

guests plucking and preparing twigs from the nearby bushes, or more
commonly helping the hostess at such tasks. Women do not usually
285 carry their unfinished wares further than a neighbor's camp; not even
the coiled baskets which are worked on only intermittently and regarded
much as our women do embroidery. Twined baskets are worked on more
consecutively; a tray basket, depending on its size, may be completed
in a few days; a burden basket is worked at off and on for a month.
They consider twining hard work because continual pulling at the stiff
wefts bruises the fingers badly. Expertness is recognized and prized; a
few women are widely acknowledged as preëminent.

[text continues on p.127]

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

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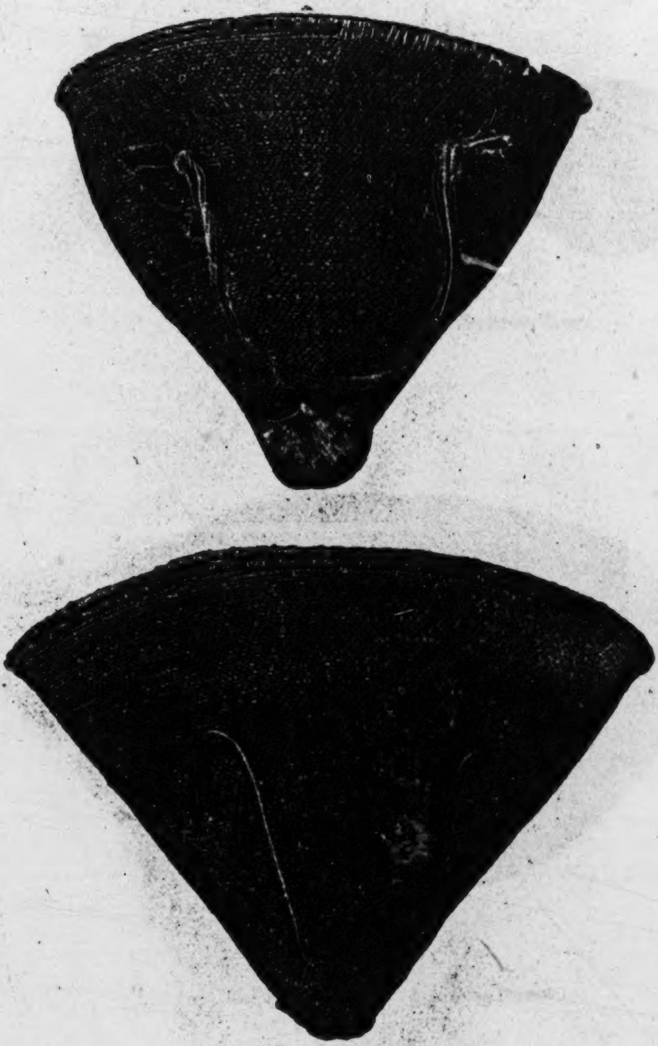

Fig. 7 (50.2-1634, 1235). Burden Baskets.

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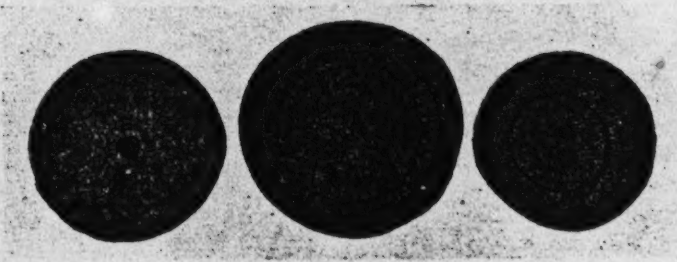

Fig. 8 (50.2-1247, 1648, 1654). Basketry Trays.

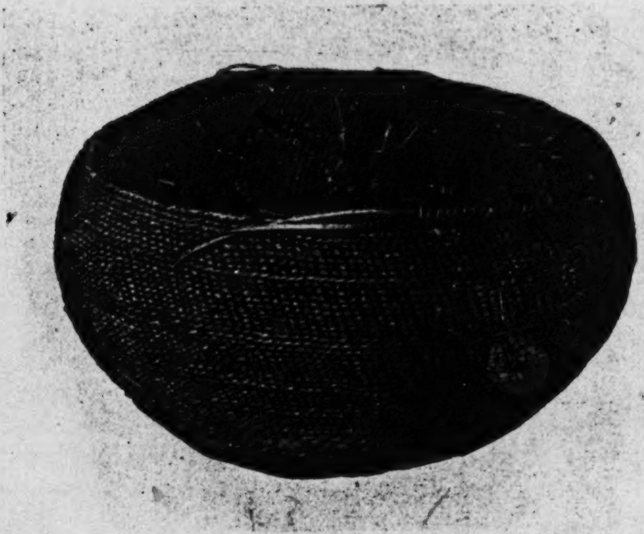

Fig. 9 (50.2-1250). A Boiling Basket.

Six types (Fig. 6) are recognised: burden baskets (*gáθá'k*), water 285
bottles (*sávad*), shallow bowls or trays in twine (*gáθá'á"*) and coil (*gá'á"*), [415]
stone-boiling bowls (*ha'ugwĕtálĕ'mia*, water, something, boil) in both techniques, and parching trays (*gáθáu'ulatá*, lit. old twined tray). Burden baskets, water bottles, and parching trays are made with twine weave.

While the weaving is quite coarse and uneven, with the exception of a few coiled pieces, many of the baskets are surprisingly water-tight. However, most baskets for liquids are rendered tight with some sort of coating, mescal juice or cornmeal mush. Trays in which mush is placed soon become impervious; the mess is sometimes rubbed into the interstices with that end in view. Small water-tight trays are used as pannikins to drink from. Water bottles receive a heavy coating of piñon pitch as well as soapweed paste.

Burden baskets are conical; some have a slight reverse curve near 482
the apex which produces a nipple effect (Fig. 7). Two loops to re- 415
ceive the carrying band are inserted in the side of the basket somewhat 285
more than a third of the distance from the rim. After the basket is completed pressure is applied to make this side flat so that the basket will not roll from side to side on the back. These baskets are generally made in three sizes: that used by the women measures about 60 cm. in diameter at the mouth, and 45 cm. in height; a smaller size used by half-grown girls is about 50 cm. by 45 cm.; that of small girls about 35 cm. by 32 cm.

Trays are used to hold seeds, meal, fruit, mush, and a host of other 285
foodstuffs (Fig. 8). Twined trays are roughly of two sizes, although the 415
variation is considerable; 40 cm. in diameter by 9 cm. in depth, and a smaller size 30 cm. by 6 cm. Occasionally these are quite conical. Fewer coiled trays are made: these are about the same size. They are somewhat flatter on the bottom than the twined ware. Parching trays are simply old twined trays, as their name implies, which are given a protective facing. Only the larger size of tray is used for this purpose.

Stone-boiling disappeared years ago so that descriptions of the [252]
baskets used for this process are somewhat vague. Apparently they were the same size as trays but quite deep, really bowls. One basket said to resemble them is 38 cm. in diameter and 23 cm. deep, quite globular, with a mouth slightly smaller than the body (Fig. 9). Smaller coiled bowls, such as those now sold to tourists, may have been used for stone-boiling. Cushing figures a coiled boiling basket, bottle-shaped, with rounded base and wide mouth.[1]

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[1] (b), Fig. 503. This shows the bundle foundation which my informants denied was ever used.

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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Water bottles are biconic with gentle reversed curves giving a nipple effect to the pointed base and narrow mouth (Fig. 10). These are about 35 cm. in diameter and 25 cm. in height. Two thongs are inserted just above the maximum diameter to take the burden band. Bottles (*sdwɔgatagóliva*) are also made without the lower cone, that is, with a flat or rounded base.[1] Occasionally this flat base is pushed inward. A third type was used when traveling afoot. It has an hourglass shape, with a flat bottom, and the upper part brought to a narrow mouth. This was carried at the small of the back by a thong encircling both the wearer's waist and the constricted part of the bottle.[2] A bottle is stoppered with leaves or a corncob.

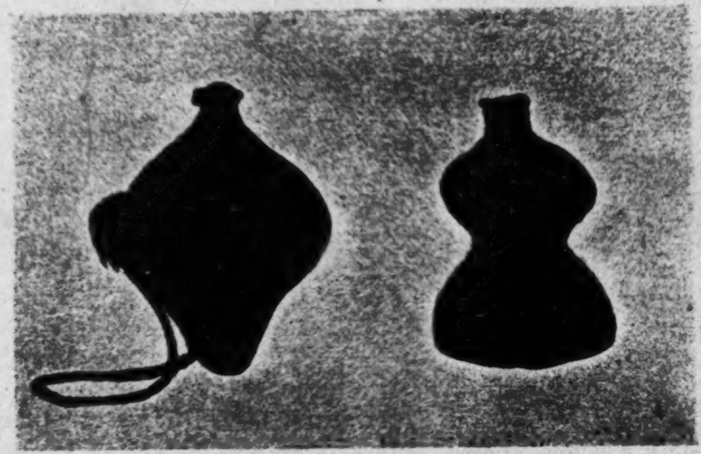

Fig. 10 (50.2-1237, 1645). Two Types of Basketry Water Bottle.

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The best material for twined baskets is acacia twigs (*ká'djá'sd*, *Acacia greggii* Gray) which are gathered when green. If picked dry, or if dried in storage, they are soaked two or three nights before using. Cottonwood and willow twigs are inferior. These, too, are gathered green. They may be used for either warp or weft, or in combination with acacia. Mesquite is never used.

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(171)

[1] Two figured by Mason, O. T., as Havasupai have the coil technique and shape of neck of Navaho specimens, [(k), Plate 32, Figs. 4 and 5, see p. 230.]

[2] Similar bottles occur among San Carlos Apache (50-6722) and Paiute (Peabody Museum, Salem). The Zuñi are also accustomed to carry small objects at the small of the back in a cloth tied around the waist. The Huichol have a similar double water gourd [Lumholtz, (e), II, 230].

The acacia twigs are stripped of leaves by drawing them through the hand protected by a cloth. They are roughly sorted and the butt ends trimmed off giving two sizes, sixty cm. and one meter long. The butts of those in the short bundle are mashed soft between two stones. The long twigs are split in three beginning at the tip, using the teeth and each hand (Fig. 11). Only the outside strips are used, the inside third being discarded. These strips are scraped to a uniform thickness by drawing them a few times across a knife held in the hand. To start weaving, two pairs of long twigs are held so that they cross at right angles at their midpoints. A weft strip is bound twice across the junction and the ends then woven alternately over and under the ribs (Fig. 12–14a). The direction of weaving is clockwise with the face or inside of the basket toward the weaver. After twining twice around these four ribs, another rib (*sïdjö'k'id*) is inserted, being caught into the twine stitch (*tclpánd*, twine or coil stitch). The mashed end of this short twig is first softened still further in the mouth, permitting it to be drawn in tightly by the weft. The butt end protrudes on the under side of the basket

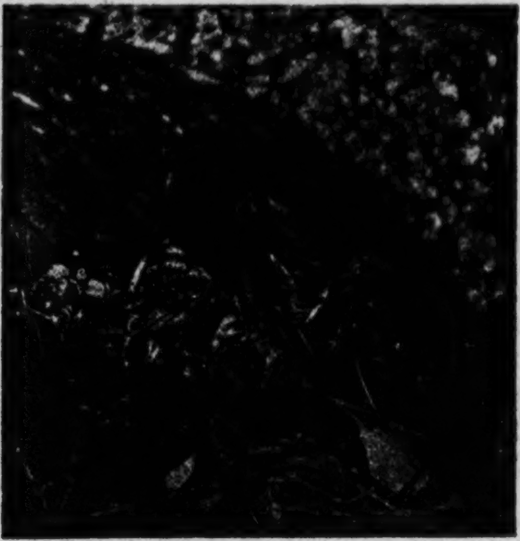

Fig. 11. Splitting Basketry Twigs in Three.

[text continues on p. 131]

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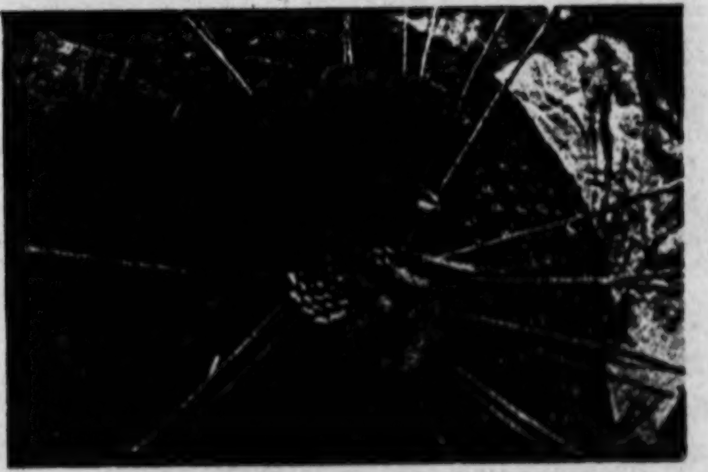

Fig. 12. Beginning of Twined Tray and Burden Basket Weave.

Fig. 13. Weaving the Burden Basket or Water Bottle.

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beyond the stitch by which it is held. New warps are successively inserted in this manner, care being taken to keep them regularly spaced. The wefts are constantly wetted so that they will remain pliable. Most baskets begin with diagonal twining (*gwigə*), the weft crossing two warps at a time. A few begin with simple twining (*gwitulgə*), weft crossing single ribs, but soon change to diagonal weave. In fact, one of the most characteristic decorative effects is due to frequent change from simple to diagonal weaves on the same basket. Diagonal twining is, of course, more rapid. In all cases the warps are inserted one at a time. While weft elements are twined in pairs, new strips are added singly. The butt of the new strip is inserted between the old weft and the rib, and is caught tight by the next stitch formed by the opposite element. The white, inner side of the weft strip is on the face of the basket, i.e., the inside of a tray or the outside of the burden basket. The warps of trays are invariably pulled backward in weaving, i.e., to the weaver's left.

The burden basket or water bottle is begun in the manner described for the twined tray. When the woven area is about five cm. in diameter the warps are sprung up from a flat plane to a conical position. The tension of the weaving makes this very easy. The basket is now held apex down in front of the weaver, who continues twining from left to right on the near side of the basket (Fig. 13) From the weaver's point of view this is weaving as before, right hand in front of left, but if the basket is viewed from the top or inside, the direction of weaving will be seen to have changed from clockwise to anti-clockwise. After the ribs are sprung up, the warps are turned back on themselves to twine in the opposite direction. At the time they are reversed so that the white inside of the weft strip will be on the outside or finished face of the basket. New wefts and warps are inserted in the same way as in the trays: rows of warps are added at regular intervals. A tray is forced down between the warps to hold them in a conical position. The apex of many burden baskets and most water bottles protrudes in a nipple effect, that is, the sides have a reverse curve near the bottom. This is undoubtedly due to the fact that the pressure of the tray causes the loose warps to flare out in trumpet shape: later, the warps are drawn together near their upper extremities to counteract this flare. Hence the sides first curve out and then in. While the shape clearly results from the technique, there can be no doubt that the effect is at the same time intentional, for it is an almost invariable feature in water bottles. The warps of the water bottle are bent inward to the neck without other guide. This portion is given a reverse curve to match the bottom. As the diameter lessens

285 some warps become superfluous: these are cut off short. A cap of rawhide, soaked in water and stretched into shape before it sets, is sewed on the apex of the burden basket with a through and through stitch

Three strand twining[1] is commonly introduced on all types of baskets 285 531 for decorative purposes. The strand usually crosses two warps, giving a much closer stitch than diagonal twine. Three strands crossing three and sometimes four warps are also used decoratively. There is no great regularity in inserting these stitches; crossing threes often lapsing into crossing fours, and vice versa. The majority of water bottles are made in three strand twine over two warps; the beginning seems to be always diagonal twine. Why water bottles are usually decorated with contrast twine stitches is a mystery, because the surface cannot be seen under the liberal coating of pitch! The last row in both trays and burden baskets is almost invariably three strand twining; this often extends to the last two rows, and occasionally to the last three or four rows of trays alone (possibly because their peripheries are much less than those of burden baskets).

To finish the edge of the water bottle, burden basket or tray, the 285 ends of the warps protruding beyond the woven fabric are first thinned by splitting, then bent to lie along the rim, and bound together with a coil stitch running around the rim. Split acacia or mesquite is used for this. The free ends of the two weft elements are included in this bundle of warps. A hoop of hard *amded'd* wood (which grows up the canyon, not near the village) about one cm. in diameter is bound on top of this rim in trays and burden basket with a coil stitch. Occasionally this extra hoop is omitted. Gaps are left in the binding of this hoop in some baskets: this has a certain degree of decorative effect.

Two loops to which the burden band is fastened are inserted in the burden basket and bottle. Each loop is fashioned of a thong which passes through the basket three, four, or five times. The loops on bottles are invariably horsehair, braided of two strands or bunches; those on baskets are said to have formerly been of the same material. The burden band was formerly made of soapweed. The longest leaves of this plant were dried until yellow, mashed between rocks, and soaked in water to remove the connective tissue. Three of these were braided into a band.

Trays intended to hold very fine seeds and parching trays are coated on the interior with the sticky connective tissue of mescal (or soapweed?) leaves. The leaves are crushed in the hands and rubbed over the basket.

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[1] Some of this may be three strand braiding.

Sometimes peaches, etc., are rubbed over the interior of parching trays 285
to prevent them from burning.[1]

When the water bottle is ready for its coating, it is vigorously 285
rubbed all over with a dry corncob so that the fine fragments of the latter 381
will fill the interstices. A mouthful of water is sprayed over the basket, then the soapweed paste is smeared on and rubbed in. This paste is made of old soapweed stalks which are pounded, the connective tissue worked up with water into a dough, and set aside for future use. When wanted it is pounded up and again mixed into a paste with water. After this is applied, a handful of red paint powder is mixed with water and smeared over the still wet bottle.[2] The bottle is then stood in the sun to dry. It next receives a coat of piñon pitch (*ânaid*). The clear gum of this tree is picked off the bark, and boiled down for ten or twenty minutes until dark brown. A quantity (six or seven cupfuls) of the liquid is poured inside the bottle. Brush is stuck into the mouth to serve as a handle. The bottle is then laid on its side near a bed of coals—the pitch is highly inflammable—and continuously turned over, the heat preventing the pitch from coagulating until it has filled all the interstices. More pitch is evidently poured or swabbed over the exterior of the bottle, which rests on a bed of brush piled over the coals.[3] A piece of cloth or buckskin is frequently placed over the pointed bottom; one bottle (50.2–1640) has a pad of loosely woven yucca fiber, sticking tight to the soft pitch. The pitch does not melt in the sun to any extent after it once hardens.

The material used in sewing coiled baskets is the twig of the *yaθák''a* 285
(which grows up the canyon, not near the village) or the cottonwood. The bark is scraped off and the wood split. The split sections are scraped to uniform width. They are prepared at leisure and coiled for storage [171]
like those of the Pima.[4] When desired for use they are soaked in water. All coiled baskets are sewed on a three-rod foundation; all three rods being of the same size.[5] The ends of three peeled and scraped cottonwood twigs are mashed and tied in a knot. One end of the sewing element is passed under one rod (*djîmda*) close to the knot. The rods are started in a spiral and the binder stitched around them into the center

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[1] Cushing states that these trays are "coated with mineral asphaltum and earth", (a), 330. This is incorrect; no earthy substance is ever used. His mistake is natural since the ball of mescal tissue which is kept for the purpose looks very much like clay. The point is important, for Cushing's theory of the development of pottery from earthen linings for baskets, based on the Havasupai case, has been widely quoted, (b), 494–498. [114]

[2] I do not understand why the bottles are colored, unless it is intended that this coating color shows through the pitch which is subsequently applied.

[3] My notes are not explicit on this point.

[4] Kissell, Fig. 15.

[5] Bundle, single, or two-rod foundations are never used.

285 of the knot (Fig. 14b). The succeeding stitches of the first coil are also sewed into the knot. The rods are now arranged so that two lie along the completed coil with the third on top and between them. The stitch in the succeeding coils is intended to pass under the third rod, but in most specimens it pierces this rod which the awl splits: it is said that this does not matter. Stitches are spaced to pass between those of the previous coil; not to split them. Stitching is usually fairly regular, but not fine. After two coils are in place the mashed ends of the rods which protrude at the center are trimmed off. Stitching is always from right to left; the left hand holding the free ends of the rods in place while the right manipulates the awl. The sewing strand is brought over the rod toward the sewer and through the coil away from her. The coiled tray, like the twined variety, is held with the finished interior face toward the sewer; stitching proceeding on the far edge.[1] In bowls the finished face is the outside of base and wall: stitching proceeds on the far side of the base, held bottom up, and on the near side of the wall while the bowl is held right side up. That is, viewed from the top or inside, the trays are coiled anti-clockwise and the bowls clockwise, but the direction of sewing is in both cases exactly the same. There would therefore be no technical difficulty in a woman turning a tray into a bowl, but since the hidden face is always left somewhat rough, the decision to make a bowl must be made as soon as the basket is begun.

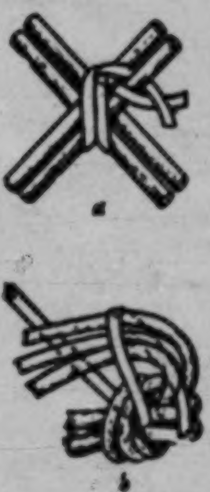

Fig. 14 (50.2-1063, 1064). Manipulation of Initial Basketry Stitches. *a*, Beginning of twine stitch; *b*, Beginning of coil stitch.

The black decorative figures in coiled and twined wares are made
285 with the black outer layer of the seed pod of the martynia or devil's
531 claw (*hulá'k'*). Two varieties are used: one, with hooks 15 to 20 cm. long is indigenous. The second variety, with hooks 25 to 30 cm. long,
[177] was introduced by Pagadjahuda, a Walapai woman who married into the tribe years ago, and who obtained the plant from her elder sister who in turn got it from the Paiute. Although the wild plants are also used, it is customary to plant martynia at the same time as corn. The pods

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[114] [1] Mason misinterprets his Plate [illegible], ([illegible]), also [illegible]: the unfinished face is not the interior.

are ripe in October. It is not necessary to pick them before the first frost.[1] Unlike the Pima and Papago only the hook-like appendages of the pod are used: these are broken off before the black fiber is split from them. When dry they may be soaked in hot water. Two strips of the black coat are split off with the teeth, beginning at the tip; the remaining interior third is discarded. To reduce the strips to a uniform width, they are held between teeth and hand while a knife is scraped along their edges.

In decorating twined baskets the black strip is substituted for one or both white wefts, the latter being cut off short. One end of the black strand is caught between the two lower foundation rods of the coiled basket, sewing then proceeding as with the white strand. The ends of the introduced strands protrude somewhat on the unfinished face in both types of basket.

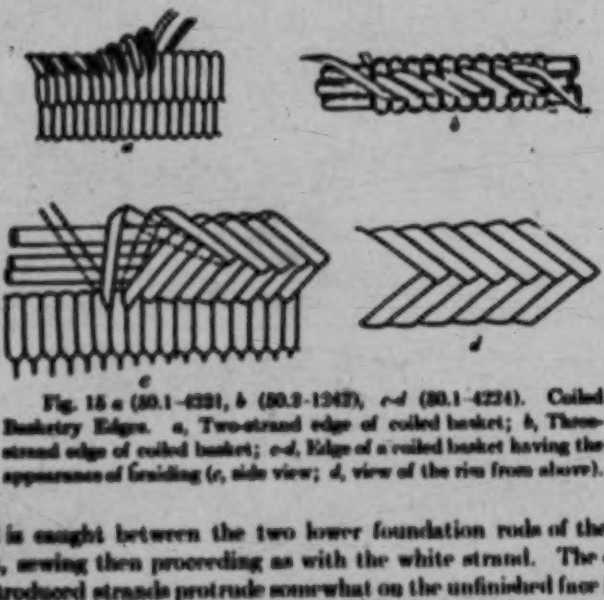

Fig. 15 a (50.1-4221), b (50.2-1242), c-d (50.1-4224). Coiled Basketry Edges. a, Two-strand edge of coiled basket; b, Three-strand edge of coiled basket; c-d, Edge of a coiled basket having the appearance of braiding (c, side view; d, view of the rim from above).

The rim of the coiled basket is finished by cutting off the three rods successively so that the coil will taper to an end. The rim is usually left without any further finish, but in a few specimens borders in other styles are added. The simplest consists of a diagonal over and over stitch with two strands (Fig. 15a). Apparently the binding is from left to right, working from the outside of the basket; that is, contrary to the

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[1] Pima and Papago pick the pods before the frost turns them gray (Russell, 292.)

1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

285 531 direction in which the coils were sewn. The binder stitch pierces the top coil between two stitches, returns toward the worker over the rim, and is inserted again between the second and third coil stitch beyond, thus alternating with the other binder strand. A second type of border is identical except that three strands are used (Fig. 15b). A third type (Fig. 15c–d) presents a braided appearance. In this case after the last coil was completed the three foundation rods were carried around for another row. The stitching on this is from right to left, working from the outside on the near wall of the bowl, that is in the direction in which the basket is coiled. A single binding strand is used in figure-eight fashion, the forward loop passing under all three rods and through the top coil, and the backward loop passing under the upper rod only; all stitches are diagonal. That is, the strand is brought down in front toward the left over all three rods, through the last coil, up to right in back, over the rim forward, down to right in front, through under the upper rod, up to left in back, and over the rim forward to repeat for the next stitch. The back loop crosses four forward loops.[1] Mason describes the same type of border stitch, but with only one lower rod and with the stitching from left to right.[2]

285 While the direction of weaving varies in these baskets, it has always the same motor basis, the actions of a right-handed weaver. At present there are no left-handed women whose peculiarity might affect the technique.[3] The direction of twine weaving is always from left to right, the active right hand ahead: that of coil weaving is from right to left, the active right hand following. Whether the coil is clockwise or anticlockwise depends then on how the basket is held. In particular the change in direction on burden baskets, bottles, and coiled bowls results from the inversion of the fabric during the process. The resulting direction of the coil baskets agrees with that of other Southwestern tribes. [171] These observations support Wissler's contention that tribal differentia [114] in direction are not based on physiological peculiarities, but are the subject of traditional habits. On the other hand, the apparent change in direction on a single basket suggests the necessity of a more refined analysis of types in determining their distribution. The desideratum is a record of the tribal hand positions.[4]

285 531 The decoration on Havasupai baskets is very simple. Twine baskets are decorated by contrasting bands of diverse stitches. Usually bands of

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[171] [1] This stitch is used as a method of fastening a Walapai basket in my possession, as well as one from the Aztec ruin and as a border of a bowl from the same place.

[2] Mason, O. T., (b), 276, Fig. 67. Compare Matthews, (b), 266.

[3] There is one left-handed girl and one man.

[4] Wissler, (e), 496–501; Kroeber, (g), 40–41.

plain twining alternate with wider bands of diagonal twining. Contrast is also obtained on the same baskets with three strand twining, since rows of this stitching are raised above the surface of the basket. The bands of three strand twine are uniformly very narrow; usually only one or two rows. Water bottles are commonly decorated in contrast twining, although they are subsequently pitch-coated to an extent which obliterates the decoration. I can see no other reason for this display of unfruitful energy than exuberant interest in utilizing a controlled technique and producing a pleasing effect for the moment. Only a very few are ever kept or traded without the pitch coating.

285
531

Designs (*tinyádigi*, also tattoo marks, face painting) are woven in twine and coil baskets with black martynia. These do not represent objects, and in fact, the women repudiated the idea that any meaning might be read into them.[1] There are no recognized design units nor design names: the women did not seem inclined to speculate about them. All the designs are extremely simple.

Twine trays are decorated with a single circular line, one row wide, or with the same line with short spurs, usually oblique, either on the inside or outside, resembling a cog-wheel with oblique teeth. The same series of teeth are used without the base line. Other decorations are a central circular area, filled solid; a horizontal zigzag line; or simple combinations of any of these. Burden baskets have one to three decorative bands around the upper third; using the same units (except the solid circle) and in addition a band of equilateral triangles, usually filled solid, and with basal angles in contact, or with bases or vertices touching a narrow line running around the basket. A band of two opposed dentate lines is frequent. Water bottles do not have design decorations.

One curious feature is a disinclination to decorate that part of the burden basket which will rest against the back and so will not be seen. The first, i.e., the lowest, band is usually carried around this portion as well, but subsequent bands are progressively executed with increasing carelessness or omitted entirely at this point. (Fig. 7.) This, of course, is contrary to the spirit which accounts for the decoration of water bottles in contrast twining.

A few baskets have the spurs of the dentate bands vertical, that is, following the warps. In all other cases observed, with one exception, the spur lies obliquely in the direction of twining, that is, with its lower end nearer the weaver's left hand and inclining upward to the right. Nearly all such designs are in diagonal twine. I think we have here a clear case of the influence of technique on design. In the first place, the

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[1] This does not prevent them from providing interpretations for the tourist trade.

[439]

285 531 right hand of the weaver twisting the wefts turns outward on the wrist (which is perhaps easier than turning inward), carrying the forward strand away and down, and the back strand forward and up. With the stiff wefts that are in use, each stitch inclines upward to the right both in the diagonal and plain twining. But more important is the overlap produced in diagonal twine of the rear end of each stitch with the forward end of that in the row below. This results in a diaper effect running upward to the right. This in itself would suggest that when decoration is introduced, the diagonal lines should move forward in the direction of weaving. Furthermore, there is no continuous diagonal line toward the left, for these stitches are separated from one another by short intervals of bare warp. Of course, it is no more difficult to weave the diagonal lines running toward the left, but the effect is not so pleasing.[1]

[177] It is difficult to say how coil baskets were decorated, since most of them are made now to conform to tourist demands. One tray in use has a single horizontal band, for the most part one coil wide but the width of two coils at regular intervals. Short lines appear at other points. The trade baskets have in part the designs found on twine wares, with the addition of units copied from the products of other tribes seen at the stores. As with the twine baskets, there is very little attempt at design composition and diverse units are crowded on the same basket without regard for their appropriateness. According to the Indians, baskets with much decoration sell better than others, but this is quite contrary to their own feeling that those which are sparsely decorated are preferable.

The hoods of the cradleboards (Fig. 55) and the seed beaters (Fig. 3) are also basket work.

POTTERY

323 415 [177] [171] Clay vessels, more often used in cooking than baskets, were displaced by metal products about 1870. The only native ware is a small, unslipped and undecorated, coarse, brown pot of the type common to all the nomadic tribes of the Southwest and adjacent sections of California (Fig. 16). The pot (*hamdi*) is globular, with a slightly constricted neck turning out in a lip (*ya'*, neck and lip?) sufficiently large to permit lifting with the finger tips. The size is reported as usually 30 cm. in greatest diameter 23 cm. in height, and 23 cm. across the mouth, but ranging down to a height of 22 cm. and a diameter of 12 cm. These lack handles or lugs.[2]

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[1] See O. T. Mason's diagrams, (b), Figs. 19 and 20.

[2] Fig. 16 represents a vessel excavated at the Lagoons north of Pine Spring. It is of the type described, but [illegible] cannot be certainly ascribed to the Havasupai because of its somewhat greater size and handles.

323 Pots are made by women alone. The best clay, the color of adobe,
occurs in a deposit located at Pine Spring west of Cataract Canyon.
317 As this is very hard, chunks must be pried off with a deer antler pick,
[462] and are then reduced to a powder by crushing between two stones. Fine
stones, procured from an ant hill, are added, the whole being kneaded
with water into a stiff dough. Cylinders, 2 cm. in diameter, are rolled
323 out between the palms and coiled in a clockwise direction on a tray
basket, patted on top the while with a small, flat, smooth stick to make them adhere. Both basket and stick are kept wet with a concoction of boiled antler, weed roots, and other ingredients. When the flat coil reaches a diameter of 20 cm. the sides are built up by coiling in the same manner; the potter supporting them with a smooth, round pebble inside while the exterior is paddled. When the vessel is complete, this same pebble is used to smear the concoction over the inner and outer surfaces, rubbing vigorously, in order to render the clay hard and prevent cracking. The vessel walls are of a uniform thickness, 0.7 to 1 cm.; the lip is no thinner. The completed vessel is set in the sun for two days or until it has thoroughly dried. A pile of dry wood of any sort, 70 cm. or more in height, is prepared and set alight early in the morning. After it

[H15]

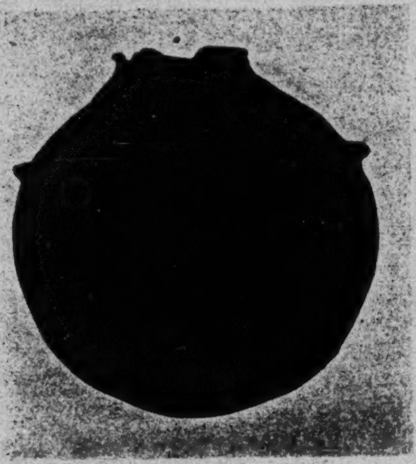

Fig. 16 (50.2-1668). A Coarse Undecorated Vessel of Clay.

323 has burned down, the coals are raked away from the center, the pot set right side up on the ground, and buried, inside and out, in coals. A small amount of brush is then set ablaze on top of this, presumably to create a draft. After baking all day and night, the pot may be removed next morning. Only one pot is fired at a time. These vessels are said never to have cracked in firing.

[252] Cornmeal mush is always the first thing cooked in the vessel. A ladle full is given to every comer, more being cooked in the same pot as the supply wanes, in the spirit of ascribing inexhaustibility to it. Pots are supported on three stones when cooking.

[356] Sometimes the bottom burns when cooking so that fine cracks appear, although the vessel does not break. A sort of "alkaline clay,"[1] obtained from the creek bed, is smeared over the faulty spot, beyond which no further attention is required.

[439] Pottery is obtained from the Hopi for storage uses, but not for cooking.

[276] Clay pipes (*amál'hú'u*) are made of material obtained from the creek bed. The bowl, 5 cm. high, is fitted with an arrow reed stem, 7.5 in. long, in one side. Cigarettes (*uvátamákwi'dïgá*) are made of cornhusk, but not of reeds.

SKIN DRESSING

281 [462] [439] A Havasupai man's sole specialized product is the tanned deerskin. It is strictly a sex-limited industry, the handling of the skin from flaying the carcass to the finished moccasin or woman's dress is man's work alone. It is also the chief article of trade, which is, on the whole, another male activity.[2]

The fresh skin is stretched on the ground hair side down, with large stones on the neck, tail, and legs, and with smaller ones along the edges. After four or five days of drying in the sun it is as stiff as a board. If the skin contains much fat, it is dried in the shade, otherwise it will putrefy. The rawhide is sprinkled with water until it can be rolled into a loose cylinder, in which condition it can be stored for future use for as long as three or four months, by which time the insects will have gotten at it.

To dehair the rawhide, it is tied down in the creek to soak for a day and night. Dehairing commences with the dawn the next day, not because the sun would dry the hide, but because the process is laborious.

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[1] Unidentified: the creek is heavily charged with lime salts.

[114] [2] Cushing observes that these people are famous among other Indians for their buckskins [(a), 553]. I fail to see any superiority over the products of neighboring tribes, or those of other North American Indians represented in museum collections.

281 The hide is hung over a smooth pole, 5 cm. diameter, which rests slanting against a tree. The hide is caught between pole and tree. The hair and pigmented layer are removed with the beaming tool grasped in both hands and drawn down the pole toward the body. The hair is frequently left on the legs, though it is just as convenient to dehair them or cut them off at once. Loose tissue is also removed from the flesh side. The [412] beaming tool is a deer cannon-bone or hip-bone broken lengthwise and sharpened. Now a horse rib, naturally sharp on its concave edge, is substituted. Dehairing takes about two hours. The hide is hung on a pole to dry in the sun for a day or so.

[417]
[291]

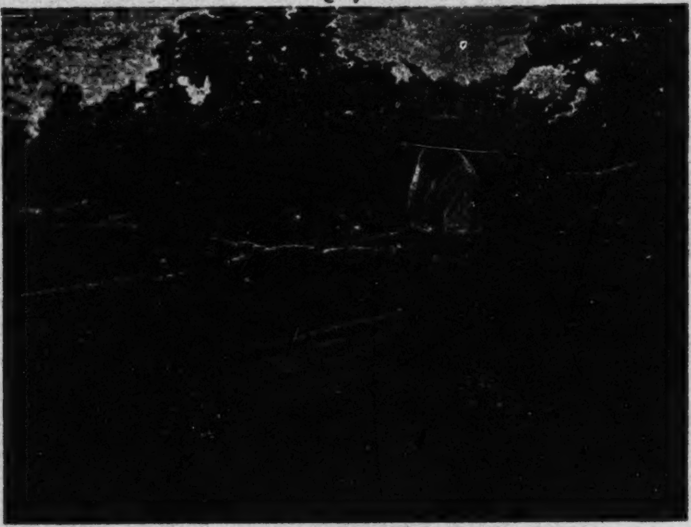

Fig. 47. Wringing a Deer Hide.

When ready for tanning, the stiff skin is soaked in the creek over night, but no longer. It is then rubbed thoroughly pliable in the hands, wetting it with warm water. Folded lengthwise flesh side out, the neck is looped about a post, the legs around a stick, and both are folded back inside the skin. Twisting the stick wrings the skin dry. (Fig. 17.) It is now stretched by pulling at the edges and rubbing it together everywhere [412] until entirely freed of wrinkles. A skewer threaded in little slits which

281 [412] have been cut along each border of the neck, aids in stretching this tough section of the hide. Excess moisture is scraped off.

Tan has been previously prepared. Fresh deer brains are roasted 281 and mixed into a ball of yucca fiber. The raw marrow from the spinal 237 canal is mixed into another ball. After being dried on the coals, these will keep indefinitely. The brain is used before the marrow. The brain and marrow of a single deer is ample to tan its hide; half is sufficient, but if the skin is not soft enough, more must be used.

One of these balls is worked up in cold water into a soapy liquor. 281 Spraying mouthfuls of this over the hair side, as well as the flesh side at the ends, the skin is rolled up from the neck and tail inward. The legs which protrude from the double roll are wrapped around it to prevent drying out. After being set aside long enough for the tan to soak through, it is spread in the sun, hair side up, to dry somewhat. Now it is straightened, hung over a rail in the sun, and vigorously rubbed and pulled until soft and pliable. The seated tanner catching the skin under his feet stretches it in every direction. Rubbing and working with the fingers creates considerable friction which presumably melts the grease well into the pores. After a second working over the whole surface, it is laid flesh side up to dry in the sun. While rubbing the skin, at which [476] several friends may help, they sing:—

[539]

WÁtim'a	wa'a'agadj	ahÁwamuhavi
(a hero's name)		he walks up in the water (i.e., the Colorado).

ya'i'vu'i'wiθa'

This completes the tanning, which occupies the day. During the whole process care has been taken to prevent the white skin from being soiled, resting it on an old blanket or heap of leaves. Skins are traded while yet [438] a little stiff, i.e., without the final rubbing, presumably because the fineness of finish depends solely on the amount of labor one wants to expend on it—and this is left to the ultimate consumer.

If it is desired to stretch the skin somewhat, little slits are cut entirely around its edges, and it is buried in damp earth over night, and pegged out in the morning. Moccasins, etc., which stiffen after a wetting, [294] are similarly buried over night and worked pliable in the hands next day.[1]

Mountain lion and deerskins are also tanned with the hair on. The skin is fleshed, after a little water is blown over the flesh side to soften it. (It must never be soaked.) After brain tan is sprayed over the flesh

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[171] [1] The Navaho bury moccasins in the earth to make them pliable (Franciscan Fathers, 308).

side, it is rolled up, set aside, and later worked as described above. As the skin contains considerable fat, it must be dried in the shade. A second tanning is then given, using the spinal canal marrow. 281

TOOLS

Fire Tools. Inasmuch as cooking is a day-long process there is usually a fire within easy reach. But fire may be readily obtained with palm drill or strike-a-light. 372

The firedrill (*o'ogddid: o'o,* fire) consists of hearth and drill. The hearth (*hatu'ydvëg*) is a section of the dry flower stalk of bear grass (*Nolina microcarpa* S. Wats., *ŏk'ïnyúdd*), which grows on the talus slopes. This is flattened on opposite sides and provided on one face with pits (*ma'dtïg*) adjacent to notches in one edge (Fig. 18). The drill (*gaid*) of dry mesquite root is straightened, trimmed, and rubbed down to a diameter of one centimeter. Beargrass and mesquite root are the best materials; others may be used, the only requisite being that they are thoroughly dry. Hearth and drill are made in two sizes. For ordinary uses about the camp, the hearth measured 25 cm. in length, the drill 60 cm. When traveling the drill is carried in the quiver, with the hearth in its own case tied to the outside. But by preference shorter sticks, each 15 cm. long, are carried together in a special case. The short drill is then substituted for the foreshaft of an arrow in order to lengthen it for use. The operator is usually seated with knees drawn up, holding the hearth on a flat stone beneath his feet. A pinch of sand is placed in the drill pan. The drill is rotated between the palms in the familiar manner, exerting considerable downward pressure; when the hands reach the lower end of the drill they are quickly returned to the top. The wood dust falls through the adjacent notch on to the stone; rubbed, dry cedarbark serves as tinder. A demonstration with a somewhat green drill took about a minute to produce a glowing coal. Obviously two men drilling together can reduce this time materially. The pumpdrill is not used.

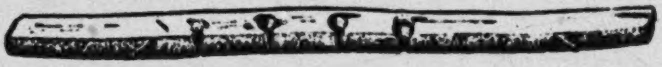

Fig. 18 (50.2-1224). A Firedrill Hearth.

The strike-a-light has a native form. A white stone (*olŏgï'skwid,* pyrites ?) is held, together with the tinder, in one hand, and struck with a flint knife. The only tinder used is cotton (*hĕdjáwi*) grown from seeds

372 obtained from the Hopi. It is braided into a thick cord (*hĕdjáwácĭnavá*) 30 cm. long, and drawn through a tube (the hind leg bone of a wildcat) of half its length. When wanted the charred end is pulled out of the tube which protects it from dampness. The tinder and stones are wrapped together in their own case.[1]

It is quite as convenient to carry a slow-match (*ohokwídá*) when traveling (Fig. 19). This is a rope of rubbed cedarbark, 2 cm. diameter and nearly 2 m. long, tied at short intervals with yucca leaves. It is carried in a coil, the smouldering end being blown on from time to time.

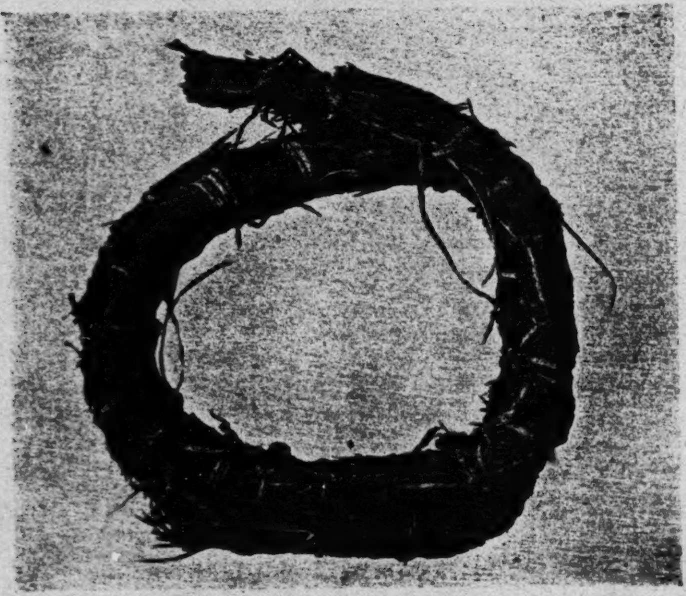

Fig. 19 (50.2–1580). A Slow Match of Cedarbark Rope.

There is no great discrimination among fuels in the canyon for all the available materials are inferior (cottonwood, willow, sagebrush, corncobs, etc.). [221] In fact, this is assigned as one reason for leaving the canyon in the winter; it is certainly too laborious to pack firewood from the [412] plateau. Fallen trees and dead limbs are broken with heavy stones.

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[1] Compare a reed containing charred cotton found by Fewkes near the Verde Valley, (a), 573.

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

Campfires on the plateau are not banked at night, but heaped with sufficient wood to last until morning. 372

Ladles. These are said to be made of mountain sheep horn (*mukwá-välä*) alone, although Cushing saw small wooden ladles.[1] The typical ladle (*mukwa'*) has a round, shallow bowl, 12 cm. in diameter, with a curved handle. A smaller dipper, 15 cm. long, has an oval bowl with a short handle (20ab). After the handle is hacked and trimmed to size, the horn is soaked and buried in wet sand from three to six nights or until it is fairly soft. The grease of the mountain sheep and the mountain lion are rubbed into the horn, which is warmed at the fire. The handle is then bent into shape. To form the bowl, the top of the horn is split, the sides wedged apart with a stick, and the edges trimmed. The bowl is filled with dirt, carefully propped up, and laid aside for a week to harden. As these are used to serve hot liquids, the bowl relaxes to its original shape. The Hopi, who take these ladles in trade, cut disks from them, which they flatten and bore for spindle whorls.[2] 321 415 [439]

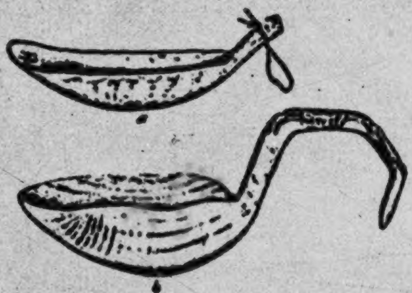

Fig. 20 a (50.2-1585), b (50.2-1217). Mountain Sheep Horn Ladles.

Gourds. Gourds (*á'ndle*), grown in the canyon, are infrequently used as water vessels. These are a long-necked variety, 25 cm. or less in diameter. The stem end of the neck is cut off square and stoppered with grass, crushed cedarbark, or a corncob.[3] A handful of kernels is placed in the new gourd and given an occasional shake to remove the loose fibers. 415

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[1] Cushing, (a), 580.

[2] Such ladles are widely distributed: Hopi and all other pueblos [Hough, (e), 278]; Paiute example in the Peabody Museum, Salem, Mass.; Wind River Shoshoni [Lowie, (b), [illegible].]

[3] The Mohave use similar gourds to carry grain on journeys (specimen in Museum of Anthropology, University of California).

[171]

415 Gourds having an hourglass shape are used as water jugs on foot journeys. They are carried at the middle of the back, held by a rope which passes around the traveler's waist and the constricted portion of the gourd.

Knives. The stone knife (*kwaiyá'l;* also arrowhead) is lanceolate, 324 as large as one's hand, sharp on both edges, somewhat pointed, but with 412 a blunt base. Obsidian is preferable, but flints are used. It is not known whether such knives were hafted: they are no longer made. Another knife (50.2-1219) is a broad flake, with long chips struck from one face only. This is conveniently held between thumb and forefinger.

Cutting movements, as in wood working, are always toward the body.

Stone is not drilled; drilled beads are obtained elsewhere, as among the Hopi. Holes are drilled in wood, bone, or horn (as in the arrow wrench) with an arrowhead, revolving the shaft between the palms.

Sleeping Mats. These (*tcĕkedlákwi'vd*) are made of strips of cedar or 285 juniper bark (*tcĕkedlá*) pounded until soft, but not rolled into rope. The larger mats are rectangular, 1 m. by 75 cm., woven with both warp and continuous weft of bark. The ends are bound by stitching with a cord at 2 cm. intervals. Smaller mats are used, and owned, by children. These [422] are somewhat elliptical, with nearly parallel sides. The warp, coiled from center outward, is crossed by twined wefts (cords) placed radially. Neither blankets nor clothing are made of cedarbark.

Rope. Ropes are usually of yucca fiber, but tanned hide is also used. 283 The inner leaves of a dead broad-leaf yucca are selected, pounded singly between two smooth stones, and flexed with the fingers to remove the connective tissue. The fibers are finally separated by continuing the flexing of a bundle of such leaves rendered pliable with water.

Yucca ropes are three- to six-ply, usually three. These are braided of bundles of fiber; the bundles are never rolled into strands. New lengths are introduced, as required, by simply laying them between two crossing elements. If the fiber is dampened the rope will shrink tight. Three-ply ropes are commonly about four meters long and 1.5 cm. in diameter.

The hide ropes may be of deer, antelope, or mountain sheep skin; the last is strongest.[1] These are also braided of three to six strands. One seven-ply specimen (50.2-1231), nearly six meters long, is flat (0.5 by 1.2 cm.) and the plaiting presents a herring-bone pattern on both sides.

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[1] Curiously my informant referred to all articles derived from this animal as best.

Bows, Arrows, and Quivers

Both the self and the sinew-backed bow are used, although the 411
former is more common. Arrows are either arrow reeds with willow [237]
foreshafts, or entirely of wood. The position of the bowman is three-quarters face toward his quarry with the bow held vertically. It is gripped slightly below the center. The arrow is held in position with the left forefinger until ready to shoot; then it rests on that hand to the left of the bow. It is pulled back at shoulder level and the bow held rigid while it is let fly. A variety of the secondary release[1] is used, in which the arrow is grasped well forward in the feathering while the first and second
finger tips bear on the string (Fig. 21). Either reed or wooden arrows are 411
used with self or sinew-backed bows. Either bow will carry about 175 224

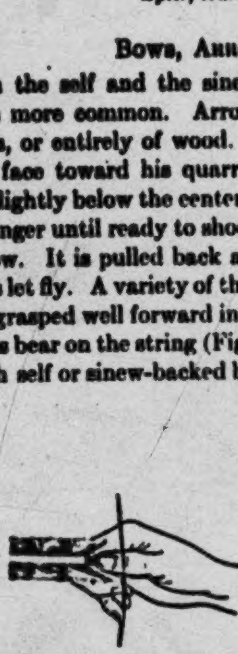

Fig. 21

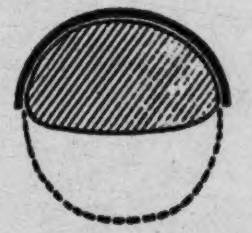

Fig. 22

Fig. 21. The Variant of the Secondary Form of Arrow Release used by the Havasupai.
Fig. 22. Section of a Sinew-Backed Bow.

m., but the effective range is 30 to 45 m. At this range the arrow would penetrate a deer from 15 to 25 cm. At a shorter distance an arrow could be driven completely through a horse. Mountain sheep have been killed when shooting down from a hundred meter cliff. Allowance is made for
windage; but rain and snow are said to have no effect on the flight. No [782]
prayer is said when shooting, nor will sickness or menstruating women in [841]
the house where it is kept affect the power of a bow. The arrow was carefully withdrawn after the kill; heads and feathers of broken arrows were saved.

The best wood for bows (*hàpû'"*) is called *kàp'ùyîma' a*, or *kàp'ù*, or 411
puima'à, which is probably the ash (*Fraxinus anomala* Torr.). A young 322
tree, about 1.25 m. tall, is selected, and its branches trimmed close so that it will grow straight. In two years this is ready to cut, for the trunk

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[1] Morse, 145-198.

322 is then 3 to 5 cm. through. Shaping proceeds without waiting for the
411 pole to season. A good bow should bear a dark streak (medullary ray?)
along its inner face, not on the back: such a bow will not easily break.
The pole is cut to the proper length for a bow, six spans (thumb to middle
finger), measured three toward each end from the middle. Some bows
are only five spans. After the bark is removed, the pole is trimmed to
the lines shown in Fig. 22, leaving the back in its natural state. Fre-
quent sighting along the bow keeps the trimming symmetrical. The
cutting is done with a stone knife and finally rubbed smooth with a grit-
[412] stone. The width at the grip should be that of two fingers (first and
middle fingers lying flat); at the ends one finger wide. Its thickness is
not measured. Fiber tension in the green bow gives a marked curve
opposite to that when strung. The bow is set aside to season for a
month: if it is strung sooner it is likely to acquire a permanent curve.
When ready for stringing the nock is cut into the edge at a convenient
point. There is no wrapping for a grip, nor are decorative marks or
paint applied.

Oak is used as well as ash for sinew-backed bows (*mĕsma*^{a}, sinewed?):
411 it is grown in the same way. Mesquite is also used, if it contains a dark
322 streak. The bow resembles the self bow, but it is somewhat shorter,
237 five spans, and only half as thick, although the width is the same. After
seasoning for two months or more until it is thoroughly dry, it is ready
for the sinew reinforcement. Nocks are first cut. The back is scraped
as smooth as possible and fine lines are scratched on it longitudinally,
[412] using a stone flake with a serrated edge. After glue is applied over half
the back, a broad sinew is laid on beginning at the middle, stretching it
toward the tip. This is rubbed in the same direction with a smooth stick
in order to make it adhere. The process is repeated for the other half
of the bow, the sinew layers lapping at the middle. Three more layers
are similarly added, setting the bow in the sun to dry partially before
each application. The sinew extends over the back quite to the inner
face. The first two layers are brought over each end and down the face
for about 1 cm. The ends of the last two layers are left free, but twisted
together. A sinew is bound in the nocks to hold the sinew backing fast.
When dry, the grip is bound with a buckskin thong, centering slightly
[439] below the middle. Red cloth, obtained from the Hopi, is passed back
[531] and forth longitudinally through this binding on the inside face, to
produce a checkered effect. Red paint is used in default of cloth. The
411 sinew layers part from the wood when the bow is old. This is checked by
237 binding at intervals with sinew. This bow is always kept strung, al-

though the string is loosened somewhat when not in use. New bowstrings are a necessity, because a worn string might snap and the tension of the sinew backing is such as to reverse the arc, break the wood, and "perhaps drive a broken end into a man's side, killing him." The bow is kept in a buckskin case; a tube with a single seam. Specimens of such bows are not extant. No trussed or compound bow of any other description was used, but the trussed bow is credited to the Navaho.

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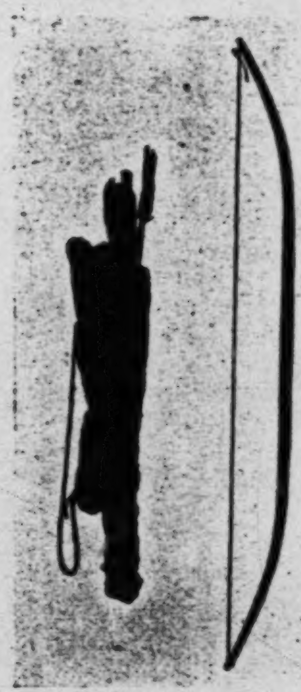

Fig. 23 (50.2-1601, 1599). Quiver and Self-Bow.

[177]

The bowstring (*ìmčcma hápudjïndgid*) is always sinew (*ìmčcma*^{m}); leather and yucca fibers are never used. The best sinew is that from the hind leg of a deer or mountain sheep. (Tendons are pulled from the hind legs from knee to hock. Others are stripped from both sides of the deer's backbone beginning at the withers, leaving them attached to each

411 237 other at the forward end. These are hung up to dry.) The sinew is soaked in water over night, scraped with the back of a knife, and separated into fibers when partly dry. To make the bowstring, two bundles of these are rolled together between palm and thigh, new lengths being added by rolling in as needed. Three bundles were preferable; these were rolled together, never braided. The bowstring is tied permanently to the upper end; the hitch for the lower end is shown in Fig. 24a. This [556] is a poor man's style; a rich man would tie a length of buckskin to the loose end and continue the wrapping for another 5 cm., fastening with a 411 half-hitch. To string the bow its upper end is set under the right instep, and while the lower end rests in the left hand, the bow is sprung by pressing with the left knee; then the right hand fastens the string. When strung, the spring of the bow is tried, and a song to the bow and string is chanted: hàpúagwiθà (Let this be strong; let this not break).

[788]

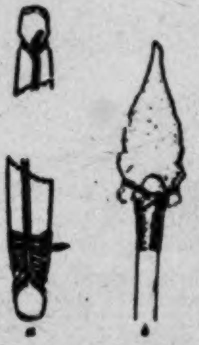

Fig. 24 (50.2-1221, 1222). *a*, Ties for Bowstring; *b*, Method of securing Arrowhead to Shaft.

The wrist protector (*salámĕ*) is simply a broad band of buckskin encircling the wrist, somewhat trimmed to fit the heel of the hand. It is fastened by taking up the slack in a loop which passes through both ends of the band.

Boys sometimes use small bows of men's type but the normal boy's bow is D-shaped. One in the collection measures 60 cm. from tip to tip, the chord of the arc 25 cm.; another 65 by 25 cm. Boys use only reed arrows, with sharpened foreshafts, and feathered with the plumage of the hawk, flicker, etc.

411 322 Reed arrows (*áp'a''at'a'* or *at'a''áp'ad'a*; *áp'a''a*, arrow) are most common. Arrow reeds (*at'á'*) are gathered green. In order to straighten them, the crooked part is pressed on hot ashes placed on a flat stone, or in the groove of an arrow-straightener (*aoθúwd*). Stones are also heated in the fire for this purpose.[1] The joints are then trimmed. Wooden arrows (*áp'á'a'i'i*; *i'i*, wood) are made of an especially hard willow (*ámandíá*, probably desert willow). These branches were peeled and left in the sun until partially dry when they could be straightened with a wrench, never by heating. The wrench (*múkwapadjiá mĭdĕmidiá*) is [321] [412] a mountain sheep shoulder blade or horn in which several holes have been drilled.

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[1] The shaft is not wet with the tongue at the point to be heated as the White Mountain Apache do.

been drilled. Straightness is determined by sighting. The arrows are 411
next cut to proper length; for use with the self bow, from tip of fore- 322
finger to top of biceps; for the sinew-backed bow, from tip of middle
finger to bottom of biceps. (This may apply to wooden arrows only).
Reed arrows in the collection measure 75 to 76 cm., of which 15 cm. is
foreshaft; willow arrows, 70 to 73 cm.; and boys' reed arrows, 72 to 77
cm. with 9to 12 cm. foreshafts. Willow shafts are trimmed with a knife—
which like all knife movements is toward the body—and then rubbed [412]
between two grooved gritstones (*patamdlia*) of pumice held in the hand.
The shaft is a true cylinder of the diameter of arrow reeds except for a
slimmer section where the feathers will be bound and for a flare at the
nock. The nock (*padjataúiga*) is next cut; in a reed arrow this comes
just above a joint. The foreshaft for the reed arrow is also willow,
trimmed to size, about 15 to 20 cm. long, and pointed at both ends.
After this is painted red, it is glued into the pith channel of the reed.
The end of the shaft is then wrapped for 2 to 3 cm. with sinew, fastened with glue, to prevent it splitting. Finally the foreshaft is split
to receive the arrowhead, which is wet in the mouth, glued in, and tied on
with sinew, which is not, however, glued (Fig. 24b). It is prayed to that [782]
it may stay tight. Many arrows, used for small game, have simply a
sharpened foreshaft.

Stone arrowheads range from 3 to 6 cm. in length; the smaller are 411
placed on reed arrows, the larger on wooden shafts. These are triangular, 324
with a deep, square notch in the base, and with the cutting edges reaching almost to the base. If an arrowhead tends to work loose, it is nicked
well up the side to aid in retying. Stone heads were flaked on the heel
of the hand with an antler tip cylinder. Bone or antler arrowheads are [321]
not used. Blunt points for stunning small game are not manufactured,
but a corncob may be placed on the point of the foreshaft for this
purpose.[1]

Willow arrows are often decorated with one to three zigzag or wavy 411
grooves (*àpáca'ui'ga*) running the length of the shaft, representing light- 531
ning (*vilal'djà*). These are made with a tool consisting of a wooden block
with a groove across one face into which there protrudes the point of a
knife thrust through from the back. The shaft is drawn through the
groove, rocking it slightly, so that the point may trace a sinuous line.

The eagle and hawk furnish the best feathers for arrows; those of a 237
smaller blue and gray hawk and possibly other birds are also used. Young

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[1] It is curious that the metal points that are made have the [illegible] of rounded shoulders where the [171]
tang joins the blade which occur in early trade examples found in eastern United States.

Young
231 eagles and hawks are captured in the nest and raised in captivity until
237 the plumes may be plucked. A shade is erected over a replica of the nest
417 in which the helpless bird is placed; when he grows he is tethered. Preferably a cage is built which resembles the frame of a sweatlodge but is somewhat higher. Brush is placed on top for shade. Cross sticks inside support a nest, on a level with which is a doorway for feeding.

Feathers are split beginning at the tip, and the narrower vane dis-
237 carded. The shaft of the wider vane is scraped thin and trimmed. The
411 whole length of the plume is used; these are about 13 cm. long for reed
531 arrows, 23 cm. for willow. The shaft is decorated as shown (Fig. 25) before the vanes are placed; the bands are 1 cm. wide on reed arrows, 2 cm. on willow. Sometimes the whole distance covered by the vanes (or most of it) is colored red alone, and occasionally the entire shaft is painted red. This painting is purely decorative: these are not property marks, for a man could always recognize his own arrows. Glue is applied

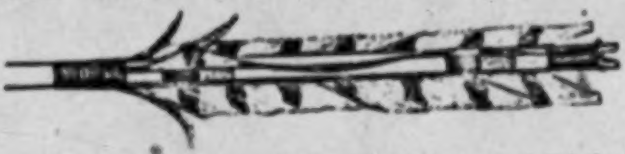

Fig. 25 (50.2-1222). Method of Feathering and Painting an Arrowshaft. The colors used are indicated as follows: heavy black, black; heavy stippling, green; light stippling, red.

411 at the points where the vanes are to be bound on, and also over the paint, where it serves as a varnish. Sinew is chewed and drawn between the teeth until it is soft, when it is wrapped several times around the nock end by twirling the shaft. A few barbs at the tip of the first vane are caught under the wrapping, then a few of the second vane under the next turn, finally the third, and the wrapping is then completed. The vanes are carefully straightened and the quills of all three simply wrapped with sinew. The sinews are not tied, the glue holding them fast. The edge of the vane is next trimmed back toward the shaft so that it is broader at the tips than the butt,[1] except that the last few barbs at the butt and the down are left long. The ends of the barbs at the tip are cut off square to the shaft. Flight is retarded if the vanes are left broad. Three vanes are always used. Many arrows have one of the vanes in the plane of the nock, but this is not essential. Arrows twirl in flight, but the vanes are never placed spirally. Arrows are left in the sun to dry for

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[1] This is not properly shown in the illustration.

several days, being taken indoors at night; they require attention during 411 this period. As many as twenty or thirty arrows were kept at a time in quivers.

The best quiver (n,ᵤtpéad) is made of mountain lion skin.[1] Only 281 rich men have these; poor men are satisfied with the hides of fawns or of 411 the young of mountain sheep. The tanned lion skin is folded lengthwise hair side out and cut as shown in Fig. 26. The edges are turned back [556] outside and sewed together with a running stitch. A circular piece of thick buckskin is sometimes sewed into the base (the neck) end, like the end of a can. A stick of the diameter of an arrow is placed in the longitudinal seam where it is bound in with an over and over stitch. The tail hangs free as an ornament. Thongs are attached at quarter points along the stick to suspend the quiver.[2] It hangs obliquely from the right shoulder, under the left arm, with its mouth pointing up and back. It is adjusted so that the midpoint comes at the waist, and a thong is tied about the body to hold the quiver close to the side.

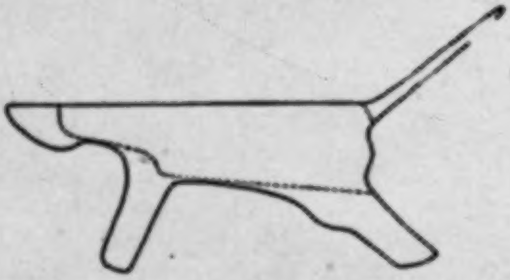

Fig. 26 (50.2-1601). The Pattern for a Mountain Lion Quiver. Based on the specimen shown in Fig. 23.

COMPARATIVE NOTES

The distribution of two types of basketry will be considered here, 171 the conical burden basket and the bi-conical water bottle. 285

Conical baskets are characteristic of California and the adjacent sections of the Great Basin and the Southwest. Without attempting to canvass thoroughly the literature and collections, I find it in California

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[1] The Navaho and Apache look on the mountain lion as a hunting god, and its skin is in demand for quivers (Bourke, (a), 438.) [171]

[2] An identical quiver from the Navaho is figured by Mason, (a) T. [illegible], Pl. LXXIX, fig. 1. The use of mountain lion skins for quivers is quite widespread in the west, but it may not be universal.

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among the Klamath, Modoc, Atsugewi, Achomawi, Maidu, Pomo, Lassik, and Chemehuevi.[1] Kroeber states that the Yumans of the lower Colorado do not make basketry and his paper on Mission basket decoration does not figure conical carrying baskets.[2] Furthermore, we know that the carrying net is used in southern California;[3] hence, we should presumably exclude all groups south of the Chemehuevi. Eastward this type is in use among the Paviotso, Ute, Kaibab, Shivwits, Moapa, and Panamint, and in Arizona among the Walapai, Havasupai, Yavapai, and San Carlos Apache.[4] East of this the carrying basket is different.

[102]

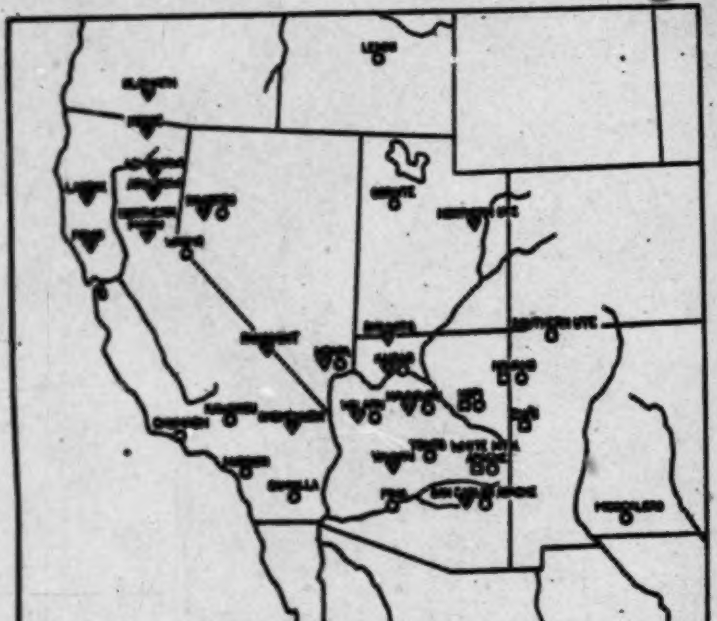

Fig. 37. Distribution of Basket Types. Triangle, denotes conical burden basket; square, rectangular burden basket; circle, biconate water bottle.

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[1] Barrett, (a), 239; Dixon, (a), 214; (c), 160; Mason, O. T., (g), 457–459; Kroeber, (g), 46.
[2] Kroeber, (g), 34; (m).
[3] Spier, (d), 142.
[4] Lowie, (f), 225–227; Powell, 123; Dutcher, 279; Curtis, II, 98; Dorsey, G. A., (b), 190; Corbusier, 333; Hodge, (d), 434–436.

1: Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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The Hopi, Zuñi, and Navaho are credited with a type that is square, flat-bottomed, and built up on a framework of two bent sticks. The Western Apache have an analogous form, but without the sticks. The Pima and Papago have an unusual carrying device of netting on a frame.[1] Its conical form suggests the conical basket under consideration; its general structure the carrying net of southern California. North of California the burden baskets are not conical, I believe. The data cited above suggest a continuous area of distribution of this type. There are obvious local differences, however. For example, open twined weaving is not used in this connection in Arizona though it occurs in the Great Basin and perhaps in California.

The water jug is commonly biconate and with a small mouth like that of the Havasupai. It is in all cases, except the Washo, coated with pitch and provided with two loops of hair on the sides to take the carrying band. This type of basket is in use among the Northern Shoshoni, Gosiute, Southern Ute, Paviotso, Washo, Moapa, Kaibab, Kawaiisu, Chumash, Mission, Cahuilla, Walapai, Havasupai, Tonto, White Mountain and San Carlos Apache, Mescalero, Pima, Hopi, and Navaho.[2] It does not occur on the lower Colorado River, among the Salinan,[3] nor, I think, elsewhere in southern California. Hough reports that the Hopi obtain these baskets from the Apache, Ute, and Havasupai; Hrdlička that the Navaho get theirs from the Ute. There is some question whether the Cahuilla make such baskets. For the Gosiute and Washo these are seed baskets.

There are local differences in the technique and the shape of the neck and base. Southern Ute, Navaho (?), Hopi, and some Moapa specimens are in coil technique; Paviotso, Washo, Moapa, Cahuilla, Walapai (?), and Havasupai are in twine. The twined vessels have conical bases, as a rule, even with the reverse curve which produces a nipple-shaped point, so that this feature seems really to be a function of manufacture by twining. Some vessels have funnel-shaped necks with wider mouths (Northern Shoshoni, Southern Ute, Navaho, White Mountain Apache). The Ute and Navaho examples are coiled, which is also the case with the Moapa pieces of this shape.

The decorations on coiled baskets and twined burden baskets and trays of the Paviotso, Moapa, Yavapai, and Walapai bear definite re-

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[1] Mason, O. T., (a), 462–463; Franciscan Fathers, 303; Kissell, 238.

[2] Lowie, (a), 179; Chamberlin, (b), 241, 248, 274; Lowie, (b), 237, 241. Washo, Kawaiisu, Chumash, and Mission specimens in Museum of Anthropology, University of California; Kroeber, (g), 6th Report, 419; Curtis, I, 21; Dodge, 180; [illegible], 31, 1866; Hough, (e), 263, 266; Mason, O. T., (a), 462; (f), 114; Hrdlička, (a), 242; Stanley and Wootten, 33.

[3] Mason, J. A., (a), 146.

171 / 285 semblances to those of the Havasupai. Martynia as a decorative material is used by the Pima, Papago, White Mountain and San Carlos Apache, Yuma Apache,[1] Yavapai, Havasupai, and Shivwits.

Pottery has an extensive distribution among the historic peoples of 171 / 323 the Southwest. It extends throughout southern California and through the center of the Great Basin as far as the Salmon River in Idaho. In addition to the Pueblos, it has been found among the Northern Shoshoni, Uintah and Southern Ute, Navaho, Jicarilla, White Mountain and San Carlos Apache, Havasupai, Walapai, Yavapai, Pima, Maricopa, Kwahatk, Papago, Opata, Seri, Yaqui, Cocopa, Yuma, Mohave, Southern Diegueño, Luiseño, Cahuilla, Chemehuevi,[2] Moapa and Shivwits Paiute, and the southern Sierra Yokuts and Mono.[3] Whether it was manufactured by the Serrano and Salinan is doubtful. There is positive evidence that within this area it was not made by the Wind River Shoshoni on the one hand and the Paviotso on the west, nor by the Tonto Apache, Gabrielino, and Chumash.[4]

The pottery of this whole group is scanty and crude in comparison to that of the Pueblos. It is generally a rough brown unslipped ware, commonly undecorated. The Mohave and Pima form an exception, for they have the ware not only in quantity, but with considerable finish.[5] In general the pottery of the lower Colorado tribes and those adjacent on the Gila and in southern California is a somewhat specialized product. The body color is reddish, decorated with darker red, black, or yellow lines. Pima and Maricopa ware is cream colored, but in general of the same sort. Ornamentation is by angular figures, parallel lines, triangles, etc., always in the same general style. This is common to the Mohave, Cahuilla, Yuma, Southern Diegueño, Papago, and probably some of their neighbors. Pima decoration is sometimes more involved, being in part in imitation of the prehistoric wares of the Gila Valley. But the character of line at least is quite like that of their western neighbors. Navaho pottery is decorated by incising and painting; the style is unknown to me.

The shape of the larger vessels is much the same among all the rancheria groups; globular ollas with either slightly restricted mouths or with wide necks tapering directly up from the greatest diameter of the pot at its middle. This is illustrated for the Pima, Yavapai, Havasupai, Mohave, Cahuilla, and Southern Diegueño. Navaho jars are taller and narrow; San Carlos are said to be cylindrical with round to conical bases. Shivwits pottery is also pointed at the bottom. 171 323

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[1] Mason, (a), 183.

[2] Kroeber, (c), 547. Yet in another place it is implied that the Chemehuevi did not make pottery (Kroeber, (l), 258).

[3] Lowie, (c), 177; (b), 233 f; [illegible], 282; Franciscan Fathers, 219, 286, 290; Curtis, I, 20, 34, 59; Hrdlička, (a), 467; [illegible], 294; Hrdlička, (b), 42-44; Russell, (c), 124-131; Gifford, 294; Dorsey, G. A., (b), 199; [illegible], (a), 238, 242, 257; Mohave, 183; Hough, (c), 253; Pattie, 190; Heintzelman, 48; [illegible], 276-277; Kroeber, (a), 277; Spier, (a), 348; Sparkman, 202.

[4] Kroeber, (g), 60, 64; Mason, J. A., (c), 143; Stuart, 619.

[5] Their pottery may be slipped like that of the Pueblos, but I can find no reference to this in the literature and doubt it.

Perhaps corresponding to the Havasupai custom of cooking cornmeal mush in the new vessel, the Cocopa cook it, smear it on the vessel, but throw it away,[1] while the Pima and Papago pour flour paste inside and out of the red hot pot, and the San Carlos coat it with a mixture of clay and *sphaeralcea emoryi*. [252]

The Havasupai pipe is exceptional in having a reed stem fitted in the side of a clay bowl. The nearest form is that of the Diegueño which has the clay of the bowl pinched out at a sharp angle into a short stem.[2] This would appear to be merely a bent tubular pipe were it not for a nipple below the bowl which is suspiciously like that of our own clay pipes. Elsewhere in the Southwest and California the tubular pipe is used; e.g., Navaho, Western Apache, Jicarilla, Luiseño, Washo, Achomawi, and Atsugewi.[3] It is interesting to note that the older pipes of the Cheyenne were straight tubes of bone or stone.[4] 171 276

Skins are dressed by the Navaho by a process practically identical with that of the Havasupai. Descriptions from other tribes are so meager that I do not know how far details are similar. Some of the Southwestern tribes at least do not smoke the skins, (Navaho, Havasupai, and Shivwits), others to the north do (Moapa—for whom it is a recently acquired trait,—Kanab, Uintah, Wind River Shoshoni, Paviotso, Achomawi, Klamath and Modoc).[5] Smoking is also general north of the Basin and eastward in the Plains. 171 281

Skin dressing is wholly the work of men among the Havasupai, as among Navaho, Yavapai, and Cocopa also. Zuñi men do all the sewing, and as is also customary in other pueblos (Cochiti, Hopi, e.g.) make the moccasins. In this connection we note that Paviotso men make their rabbitskin blankets.[6] On the other hand, skin dressing and working is a woman's task in the Plains, which suggests that in the Southwest the Pueblo idea of men weaving garment materials has been transferred to the preparation of skins by men of these tribes. 171 281 462

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[1] Field notes of R. H. Lowie.

[2] Spier, (a), 343; Hough, (d), Pl. XI, Fig. 20.

[3] Franciscan Fathers, 307, 393; Matthews, (f), 314; Whipple, Ewbank, and Turner, 47; Russell, [illegible]; Dixon, (e), 216; J. A. (a), 307; Sparkman, 222, 210; Washo data from Doctor R. H. Lowie; [illegible] Mason states that the [illegible] and Yokuts used reeds, not clay or stone, but elsewhere he speaks of the [illegible] "pipe" ((a), 142, 168).

[4] Grinnell, (c), I, 208.

[5] [illegible], (b); Lowie, (f), 220; Mason, O. T., (e), 573.

[6] Carpenter, 232; Stevenson, M. C., (b), 371; Dumarest, 149; Hough, (d), 70, 71.

2

171 372 Most Southwestern peoples, like the Havasupai, use a simple fire-drill, a single piece of wood. The composite drill, having a short fore-shaft of wood of a special sort set in the end of the drill, occurs in this area among the Navaho. The Hopi use it at least in their New Fire ceremony. Northward it is distributed among the Paviotso, Klamath, Modoc, Washo, Lemhi and Wind River Shoshoni, Crow, Green River Salish, and Snohomish or Snuqualmi.[1] The materials used might be compared. I note that the Havasupai use the flower stalk of bear grass for the hearth, the White Mountain Apache that of *Yucca baccata*, and the Navaho a soft stalk of a large weed. The Shivwits, like the Havasupai, use mesquite for the drill. With regard to the pits on the hearth, the Paviotso prescribe four as the standard number. Similarly of the Navaho hearth, it is said "small holes, sometimes four in number, were out into it,"[2] and one Havasupai specimen (50.2-1224) has four holes, but this was not specified as standard for them. The Shivwits made pits all along the hearth. It may be that we have here a diffused trait; on the other hand, it may be nothing but an expression of the pattern number, four, obtruding itself on every occasion.

The slow-match, a long roll of cedar or sagebrush bark, is widely distributed through the western plateaus. It is used by the Havasupai and by the Navaho according to them (p. 226), Hopi, White Mountain Apache (?), Wind River and Lemhi Shoshoni, Klamath, Modoc, Thompson, and Nisqually.[3]

285 171 Bark mats or blankets may be in general use throughout the plateaus. The smaller Havasupai type, woven spirally, is also found among the Navaho.[4] Reed mats are used instead by the Pima, Luiseño, Northern Shoshoni,[5] and Maidu.

171 411 237 As Mason and Wissler pointed out years ago the sinew-backed bow is found throughout the western plateaus, in the western Plains, and on the Pacific slope.[6] The following notes will help to define its range with greater precision (Fig. 28).

In the Southwest it is used by the Mescalero, Jicarilla, Southern Ute, Navaho, White Mountain Apache, and Havasupai.[7] There is a prehistoric sinew-wrapped bow from southern Colorado in the Museum

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[1] Hough, (c), 288; Fowke, (d), pl. 3; Lowie, (i), 222; (a), 188; (h), 214; Hough, (e), 530-542; Barrett, (a), 257; Haeberlin and Gunther, 14. Washo information from Doctor R. H. Lowie, 1926.

[2] Franciscan Fathers, 64.

[3] Hough, (c), Pl. 20; Lowie, (i), 222; (a), 189; Chamberlin, (a), 24; Barrett, (a), 257; Teit, (a), 287; Haeberlin and Gunther, 15.

[4] Franciscan Fathers, 467.

[5] Russell, (d), 134; Sparkman, 210; Dixon, (a), 148; Lowie, (a), 184.

[6] Mason, O. T., (f); Wissler, (a), 159.

[7] Pattie, 144; Goddard, (b), 201; Hough, (c), 287; Letherman, 282; Mason, O. T., (f), 640, 668, Pl. 79, Fig. 3; Dorsey, G. A., (b), 129; Bourke, (b), 47.

[Text continues on p. 160]

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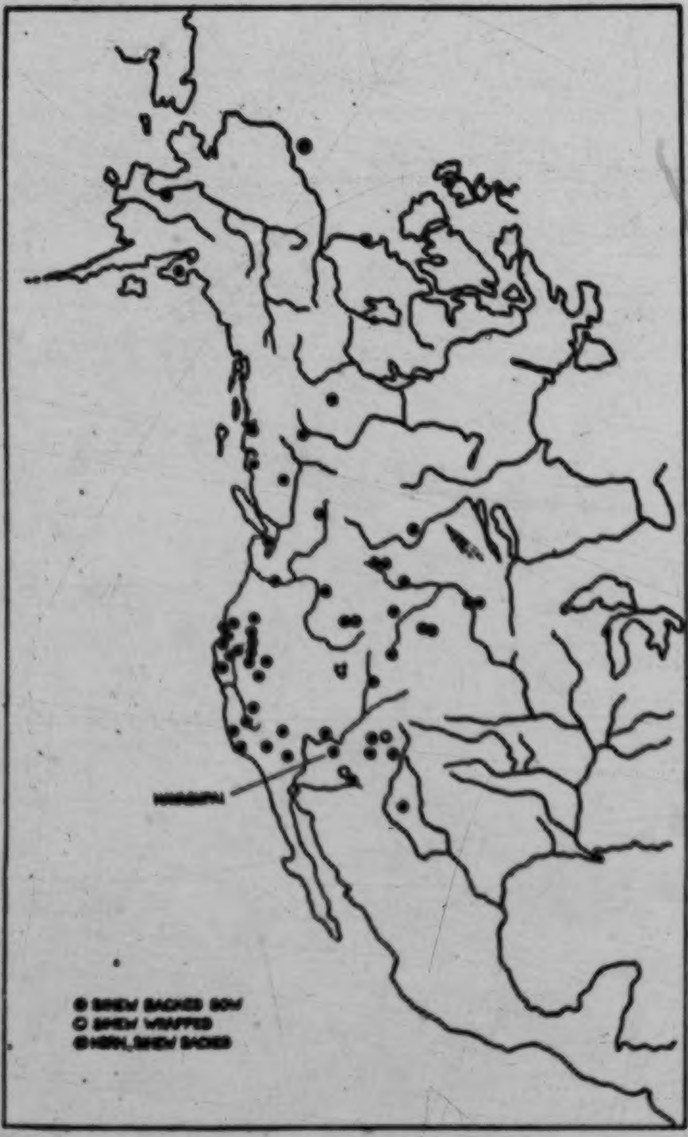
HAVASUPAI
● SINEW BACKED BOW
○ SINEW WRAPPED
◉ HORN, SINEW BACKED

Fig. 22. Distribution of the Sinew-Backed Bow in North America (omitting Eskimo types).

1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

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of Anthropology, University of California (2–3342). The Tonto have a bow "strengthened at points by a wrapping of sinew," and that of the Yuma is also wrapped with sinew.[1] In California and the adjacent part of the Basin the sinew-backed bow is used by the Chemehuevi, Panamint, Kitanemuk (Tejon), Salinan, Yokuts, Wükchumni, Washo, Paviotso, Northern Maidu, Yana (?), Northern Wintun, Eastern Pomo, Atsugewi, Achomawi, Hupa, Yurok, Rogue River peoples, Modoc and Klamath.[2] According to Kroeber this occurs generally in California south to the Tehachapi Range, including the Panamint and Yokuts and a single specimen attributed to the Chumash. The Cahuilla, the Northern and Southern Diegueño did not have the sinew-backed bow, nor did the Hopi, and perhaps Shivwits and Uintah.[3]

To the north and east this form is recorded for the Northern Ute, Lemhi, Crow, Blackfoot, Gros Ventre, Plains-Cree, Cheyenne, the Sioux of Montana, Hidatsa, Takelma, Wishram, Wasco, the natives of Port Discovery on Puget Sound, Middle Columbia Salish, Shuswap (?), Chilcotin, Carrier, Sekanai, Ts'ets'aut, Kenai, and the Tinneh of the lower Yukon River.[4] Mackenzie observed the bow in what is probably Bella Coola territory.[5] Another type, consisting of joined pieces of horn and backed with sinew is known from the Kaibab, Wind River[6] and Lemhi Shoshoni, Cheyenne, Hidatsa, Blackfoot, and Nez Percé. Some of those referred to above may be of horn rather than of wood. The data used here are not sufficient to distinguish between the wide bows of the Pacific slope and the slender variety of the Basin and Plains, as O. T. Mason does.

The Eskimo have still another form of the sinew-backed bow, which commonly has a cable of sinews extending along the back. This is known from Baffin Land to East Cape, Siberia. The trussed bow is also credited to the Navaho by the Havasupai. Compound bows are widely distributed in Siberia and other parts of the Old World.

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There is some suggestion that the length of self bows increases in the direction of Baja California. The relevant data (chiefly approximations) at hand are: Maidu, 1 m., Salinan, 91 cm., Havasupai, 91 to 112, 411 Western Apache, 102, Yavapai, 137, Mohave, 122 to 182, Pima, 135, 171 Cahuilla, 122 to 137, Luiseño, 152, Southern Diegueño, 100 to 120, Cocopa, 182 to 243, Pipi[1] and Lower California Indians, 182, and Pericues, "long."[2] The exception here is the Southern Diegueño.

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[1] Smart, 418; Trippel, 378.

[2] Whipple, Ewbank, and Turner, 32; credited to the Chemehuevi by the Southern Diegueño Spier, (d), 360; Coville, 360; Mason, O. T., (f), Pl. 63, Figs. 2, 3, 4; Pl. 92; 675; Mason, J. A., (a), 142; Powers, 373; Barrett, (b), 16; Lowie, (i), 245; Snyder, 337; Dixon, (a), 202; Pope, 339, 341, Pl. 52, Fig. 3; Pl. 48, Fig. 15; 337, Pl. 47, Fig. 5. Pomo data from Dr. Edwin Loeb; Wükchumni from Miss Ann Gayton. Dixon, (e), 213; Barrett, (a), 240; Quarterly Oregon Historical Society, 7, 1906, 170.

[3] Kroeber, (g), 88; Spier, (e), 350; Lowie, (l), 245.

[4] Catlin, (a), 96; Lowie, (a), 175, 191; Thwaites, III, 19–20; Lowie, (g), 230; Wissler, (a), 155, 160; Kroeber, (h), 150; Skinner, 83; Grinnell, (b), I, 174. Pope, Pl. 46, Fig. 14, 340; Sapir, (a), 272; ms. on Middle Columbia Salish; Mason, O. T., (f), Pl. 62, Figs. 2, 3; 676, 677; Teit, (c), 518, 782; Morice, (b), 56, 59; Boas, (b), 562; Wasco specimen, Field Museum no. 60491.

[5] Mackenzie, II, 311.

[6] Powell, 128; Lowie, (l), 246.

Mohave, Navaho, and Southern Diegueño bows at least are cut from the wood in the same way as the Havasupai. That is, the rounded [322] back of the bow is the exterior of the tree limb, the interior is cut flat giving a trapezoidal cross-section. This may not be general.[3]

The Navaho use the same bowstring hitches as the Havasupai and also attach a length of buckskin to the string. The bowguard or wrist protector is widely used. In this area it is recorded for the Yavapai, Tonto, Havasupai, Navaho, Hopi, Mohave, Pima, Southern Diegueño, Paviotso, and Northern Shoshoni.[4]

The arrow wrench may be quite widely used. O. T. Mason ascribes 171 it to the Plains Indians, the West Coast tribes, and the Eskimo. I have 412 found it recorded among the Navaho, Ute, and Cheyenne,[5] as well as the 321 Havasupai. This is a mountain sheep horn. The Hopi use antelope or goat horn[6]; the Cheyenne bone also.

Reed arrows are apparently restricted in the Southwest and California 411 to the tribes in the direction of the lower Colorado River. The 171 Yavapai, Tonto, Pima, Cocopa, Pipi, Seri, and the Indians of Baja California seem to use only reed arrows[7]; wooden ones are also used by the Navaho, Havasupai, Western and Mescalero Apache, Mohave, Yuma, Cahuilla, Panamint, Luiseño, Southern Diegueño, and Maidu.[8] All other tribes mentioned in the second paragraph below apparently have wooden arrows only. The Havasupai and Luiseño favor the reed, the Cahuilla the wooden arrow. It is interesting that the Paviotso make a wooden arrow with a separate foreshaft in the manner of a reed arrow.[9]

There is also a suggestion that arrows from the lower Colorado and Baja California are longer than elsewhere. This might be expected from

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[1] A group one hundred miles below the mouth of the Gila and below the Cocopa (Pattie, 201).

[2] Dixon, (a), 203; Mason, J. A., (a), 142; Bourke, (b), 57; Whipple, Ewbank, and Turner, 50; Russell, (d), 95; Kroeber, (g), 56; Sparkman, 205; Spier, (e), 350; Chittenden, 204; Baegert, 362; North, 238.

[3] Pope, 235, Pl. 46, Fig. 2; 237, Pl. 47, Fig. 7; Spier, (e), 350.

[4] Corbusier, 283; Smart, 418; Shufeldt, (a), 784; Franciscan Fathers, 319; Hough, (o), 240, 298; Whipple, 114; Russell, (d), 103; Spier, (d), 353; Lowie, (i), 245, (a), 192.

[5] Franciscan Fathers, 318; Mason, O. T., (f), 600; Grinnell, (b), I, 179.

[6] Hough, (o), 279.

[7] Whipple, 98; Smart, 419; Russell, (d), 96; Heintzelman, 43; Pattie, 201; McGee, 197, Baegert, 362; North, 238.

[8] Franciscan Fathers, 182, 318; Mason, O. T., (f), 630, 661; Pattie, 164; Trippel, 376; Kroeber, (g), 58; Coville, 360; Sparkman, 206, 206; Spier, (e), 351; Dixon, (a), 203.

[9] Lowie, (i), 246.

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the fact that their bows are longer, but the correlation is not close. Approximate lengths follow—:

	Wood	*Reed*
Maidu	82–87 cm.	
Havasupai	70–73	75 cm.
Western Apache		60
Mohave		very long
Pima		78–85
Luiseño		90
Southern Diegueño	60	74–80
Seri		65
Baja California		95–120
Pericucs		90+

Wooden arrows sometimes have shallow longitudinal grooves running along the shaft; these are usually wavy or zigzag. O. T. Mason states that "the Eskimo do not make them, neither do the Northwest Coast Indians. Athapascan, Shoshonean, Siouan, Kiaowan tribes are especially given to this practice."[1] The distribution of this feature is wide, but more restricted to a definite area than Mason's generalisation would imply. Such grooves are generally used in the Southwest, in the Basin and northern California, and throughout the Plains, but I have found them nowhere else with the exception of the Western Déné. In addition to the literature, I have examined the collections in the American Museum of Natural History and the Museum of Anthropology, University of California, with some care, and somewhat more casually those in the Field Museum, United States National Museum, Museum of the American Indian, Washington State Museum, and the Provincial Museum, Victoria, B. C. It occurs among the following tribes: Yuma, Mohave, Havasupai, Hopi,[2] Zuñi, Western Apache,[3] Navaho,[4] San Ildefonso, Taos, Picuris, Mescalero, Southern Ute and those of Utah, Wind River (?) Shoshoni, Snake of Idaho, Maidu,[5] Wintun, Achomawi, McCloud River, Shasta, Hupa, Yurok, Klamath,[6] Wasco,[7] Rock Creek Sahaptins,[8] Nez Percé, Blackfoot, Western Déné,[9] Crow,[10] Cheyenne

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[1] Mason, O. T., (f), 660.
[2] Hough, (a), 209.
[3] Mason, O. T. (f), 664.
[4] Franciscan Fathers, 318.
[5] Dixon, (a), 203.
[6] Mason, (f), 676.
[7] Field Museum, no. 60491.
[8] Washington State Museum specimens 5753 and 5759.
[9] Morice, (b), 55.
[10] Lowie, (b), 230.

[Text continues on p. 164]

1: Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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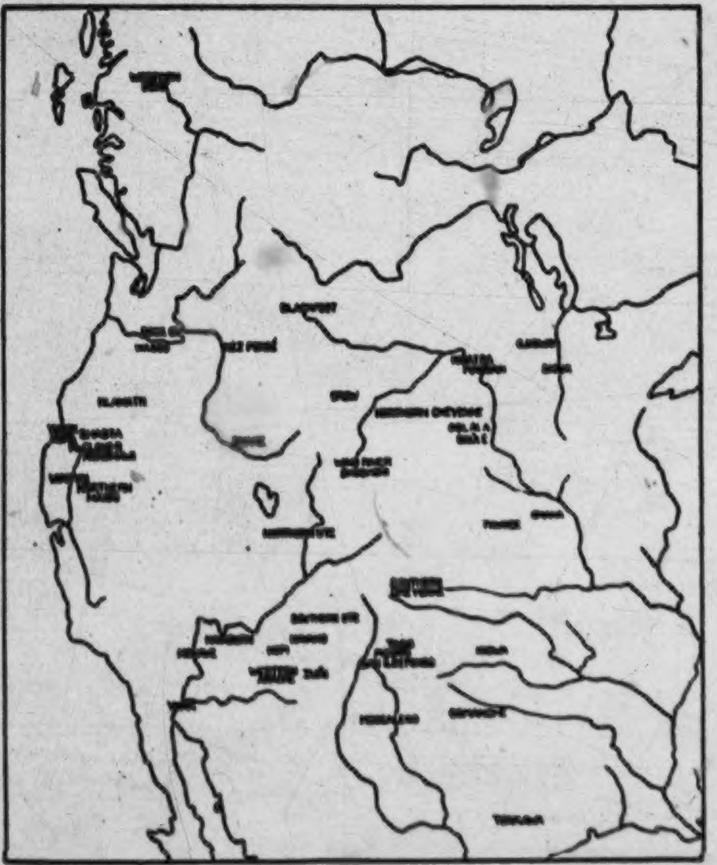
BLACKFOOT
NEZ PERCÉ
KLAMATH
SHASTA
NORTHERN CHEYENNE
WIND RIVER SHOSHONI
PAWNEE
SOUTHERN UTE
HOPI
ZUÑI
MESCALERO

Fig. 29. The Distribution of the Grooved Arrowshaft.

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(both northern and southern groups),[1] Hidatsa, Mandan,[2] Oglala, Brûlé, and other western Sioux, the Sioux of Devil's Lake (Minnesota?), Ojibway of Dakota, Omaha,[3] Pawnee,[4] Kiowa, Comanche, and Tonkawa[5] (Fig. 29).

These grooves range from zigzag to straight lines. While my notes are not sufficiently complete for certainty, there is a suggestion of regional specialization of this feature. That is, Tonkawa, Comanche, and Kiowa examples are straight or nearly so; the others, where we have information, are wavy (Nez Percé, Wasco, Snake, Maidu, Ute, Havasupai, Navaho, Hidatsa, Mandan, and Ojibway). Cheyenne arrows have a straight groove on one side, a zigzag on the other. That from the Sioux of Devil's Lake is straight, but others from the Sioux figured by Mason are wavy or zigzag.

Several explanations are offered: they represent lightning to the Navaho, Havasupai, and Mandan;[6] blood channels to the Western Apache and Pawnee. The last also say that the grooves cause the arrow to adhere to the wound. Those of the Western Déné and Klamath are also styled blood gutters, but I am not sure that the Indians call them that. The Omaha explain them as a device to prevent the arrow from returning to its natural bent, an explanation accepted by Grinnell in connection with the Cheyenne, but the grooves are so shallow, the merest traces, that it is difficult to see how they could function, if a longitudinal groove would serve at all. This seems nothing but a rationalization, not different from the blood-channel explanation.

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[1] Grinnell, (b), I, 180.

[2] Mason, O. T. (f), 884.

[3] Fletcher and La Flesche, 451.

[4] Mason, O. T. (f), 674.

[5] Mason, O. T. (f), Plates XLI, 2; XLII, 1, 3; XLIII, 1, 2, 6; XLIV, 6; XLV, 2, 4, 5; XLVI, 2, 4; XLVII, 2, 4; LXXIX, 2; LXXXI, 2; LXXXII; LXXXIX; XC.
In these museum collections are arrows from other localities lacking the grooves: Bella Bella, Chilcotin, Kwakiutl, Clayoquot, Modoc, Quinault, Pomo, Tulare, and Shoshone. To which Assiniboin may be added, according to Mr. Eugene Golomshtok.

[6] This may be Maximilian's explanation, not that of the Mandan.

MEASUREMENTS, TIME RECKONING, DIRECTIONS, AND COLORS

A number of measurements are in use. These have no names. The finger span, from the tip of the thumb to the tip of the middle finger, and the hand length, from the tip of the middle finger along the palm to the wrist, are used in measuring arrow foreshafts, for example. Finger width, that is of the first two fingers, gives the width of a bow. The arm length, from the tip of the middle finger along the inside of the arm to the shoulder joint, gives that of the arrowshaft. The span of the arms, i.e., between the outstretched hands, is used to measure buckskins, the excess being measured in finger spans. The half arm span, from the sternum to the finger tips, is half the length of a bow. Steps are used in measuring houses, etc. Formerly the foot length was not in use. The Hopi use the forearm to measure the length of ears of corn when trading, but the Havasupai make no use of this measurement. 804 [171]

By way of a device for laying out lines, for example, in making a woman's dress, the bow is used: the back furnishes curved lines, the string straight ones. [294]

I have not observed that the fingers or other objects are used in counting. Of course counters are used in certain games, but not because they cannot reckon without them. Beside the numerals given below,[1] fractions (at least a half) are named. 802

1 ʃsī'tà
2 xuwʌ́gà
3 hūmúgà
4 hop'ʌ́
5 θȫt'ʌpà
6 tacpȫ'
7 xuwagacpí'k
8 humugθcpȫ'k
9 halᵘθúia
10 viwa''avá
20 wavàhuʌ́gà or xuʌ́gàvuwʌ́gà

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[1] See also Harrington, (a), 894.

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22 wavȧhuágȧ xuágȧtcĕálĕ or xu'agȧvuavȧ xu'agȧ tcĕálĕ
23 wavȧhu'agȧ hŭmugȧ tcĕálĕ or xu'agȧvow'avȧ hŭmugȧ tcĕálĕ
30 wavahumugȧ or humúgȧvuwávȧ
40 wavȧhopa'' or hopadjĕvuwávȧ
41 wavȧhopa'' sĭ'tigtcĕálĕ or hopadjĕvuwáva sitigtcĕálĕ
50 wavȧθet'apȧ or θĕt'apȧvuwávȧ
60 wavȧtĕcpĕ' or tĕcpaivuwávȧ
70 wavȧxuagȧcpĕ' or xuagȧcpaivuwávȧ
74 wavȧxuagȧcpĕ'hopaktcĕálĕ or xuagȧcpaivuwavȧ hopak tcĕa'lĕ
77 wavȧxuagȧcpĕ'xuwagȧcpĕ''tcĕálĕ or xuagȧcpaivuwavȧ
xuwagȧcpĕ''tcĕálĕ

One to five, nine, and ten are independent stems: six is presumably based on one, seven on two, and eight on three.[1] Twenty is either ten-two or two-ten: twenty-two is compounded of ten-two and two, and so on.

805 Four seasons of the year are named, although it is doubtful that these are thought of as definite divisions: *dicúdīgá*, winter; *inyádiúyá*, summer; *n,imuwémīmá*, spring (March and April); and *malmúnīmá*, fall (October and November).

Years are said to be counted by snows (*handpaicá*); a myth gives a duration of ten winters (*icúdin,dvuwdvá*).[2] Shorter periods are designated in months, i.e., moons[3] (as *háldhop'ágá*, four months) or in sleeps (as *hopa'djáamŏ'g*, four sleeps).

The calendar presents the confusion commonly observed where twelve named periods are intended to correspond to the thirteen lunar months, and because some of them begin with the appearance of certain constellations there is further confusion. In addition, my information is not clear.

The year begins in the middle of November when the Hoop constellation rises. The following list of months was obtained in August, 1918 from Sinyella.

1. sĕldjiĕ'liá, hand + to come.
   Cottonwood leaves fall.
   Begins with the rising of Tavádjádá, the hoop of the hoop-and-pole game, at dawn in the southeast. One of the culture heroes fixed this as indicating the first month. (Rose November 4, 1919.)

[821]

2. háiĕ'pagiayuwáva, moon + [man] staying at a house.[4]
   Cool; a little snow on the plateau.

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[1] I neglected to record in my notes the numbers from eleven to nineteen, but as I recall eleven is vawávasitá, and so on.

[2] There are no calendar records of the Pima type [Russell, (c), 76-80.]

[3] A San Carlos man kept track of a child's age by moons (Hrdlička (d), 400). *For the divisions* of the day and year among the Yuma, see Trippel, 478.

[4] This may refer to the winter solstice.

3. i'pedja'ála, the name of a constellation rendered ip'éha in a myth, (from i'i, wood, pik, to carry.) 805 821

Very cold; snow nine to twelve inches deep on the plateau.

Begins with the appearance in the southeast of a constellation representing Coyote carrying a pole of smaller stars on his shoulder. Mountain Lion came to his camp and ate his food. Coyote was angry. They told him to get a long pole and build a fire. He did not want to burn his pole, so they told him to go to the west and come back from the east. (Rose December 12 or 13, 1919.) [773]

This is called the second month in a letter from Jess Cheekapanyega giving the date on which the group arose. As this is only a month later than the first fixed date (Nov. 4, 1919) this information is probably correct. The month listed as second is perhaps the third, for the fixed date for the fourth month (Feb. 6, 1920) is two months later, leaving one lunation unnamed.

4. hömásfkÁ'dádia, star + very cold

Bitter cold; snow thigh deep.

Begins with the appearance of a constellation (Fig. 39d) in the east. (Rose about February 6, 1920.) This group may represent a portion of the constellation Perseus including the star alpha which would be visible in the northeast in December, January, and February in the early evening.[1]

5. mádigimalá, bean dance.

A little warm; snow a foot deep now melts a little.

The Hopi plant beans in a bucket and build a fire near it. They boil the sprouts and have a dance for joy, I was told. This is the Hopi Powamu ceremony which occurs early in February.[2] My informant said this month is not counted, hence its name may be an alternative for the fourth month.

6. mÁwalípûk, warmed.

Warmer; snow melts lower [March.]

7. máwaiát'ûviagá, warm + half-way

Some begin to plant when the last crescent of the moon shows.

[Leaving out the fifth month, this is April: planting begins in mid-April.]

8. máwaiíkátăváóvá, warm + gone. (The moon is gone by the end of this month.)

Planting during this month [May].

9. inyătápû'k, sun + to make [warm?]

Hot; planting ended; alfalfa high and cottonwood in full leaf [June.]

10. inyăkátuyumiyă'ká

A little rain [July.]

"We do not count this month."

11. gálʊtáaqégá, thunder storm

Summer storms begin when this moon is half gone [August.]

The current month was given as galʊ'pahuá on August 31, 1921.

12. gálʊpû'ktciwû'k.

Many storms with floods [September.]

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[1] Dr. C. D. Shane was kind enough to suggest identifications of these star clusters on the basis of my informant's fragmentary data.

[2] Voth, 73, 81.

1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

805
821 The list is apparently incomplete and garbled, yet I have attempted to give the approximately corresponding months in our calendar on the basis of the dating of the constellations and the descriptions of the seasons.

It is obvious that twelve names cannot do duty for not quite thirteen lunations and it is manifest that the Havasupai do not attempt the impossible. I was told that these are not intended to coincide with the lunar months and that the days are not counted. It seems that what I [171] found true of the Southern Diegueño applies here: that these Indians are interested only in designating a series of periods without attempting to fix their limits, and these periods are roughly the lunations, the names of which are variable and frequently in doubt. The only certain months are those fixed by the appearance of the several star clusters, and these all occur at the beginning of the Havasupai year. There can be no question here of intercalation of the thirteenth lunation in a twelve name series.

There is some suggestion that the months begin with the full moon.

Month	*Began*	*Full Moon*
1st–1917	Middle of November	Nov. 28, 1917
1st–1919	Nov. 4, 1919	Nov. 7, 1919
3rd (or 2nd)– 1919	Dec. 12 or 13, 1919	Dec. 7, 1919
4th–1920	Feb. 6, 1920	Feb. 4, 1920

The solstices are recognised. Sinyella has a definite place where he stands to observe both solstices at sunrise. Presumably the other fixed points are pinnacles, etc., on the canyon walls. (Normally the canyon is deserted in mid-winter.) The winter solstice (*n$_y$avōkig*, coming back) occurs when the moon is half full. Sinyella fixed this as December 30, 1919. The summer solstice is *inyáhīn$_y$an$_y$náwaha*, the sun is home. I did not learn of any rituals connected with these dates.

Time is indicated chiefly by the position of the sun.

n$_y$imiθā'vumá	day time
inya''dji'áligigá	sun barely risen
inyá'tapévigigá	sun risen half way
inyá'víluwivigá	noon (sun in the middle[1])
inyádēpévigá	sun halfway down
inyátū'pmigá	sun falls out of sight
natāk'épigá	night
natāk'épvíluwivigá	midnight
dju'va$_y$mθavám igpafim	before the dawn
halávāā'pigigá	dawn.

The moon (*halá*) is a man or a man's head. A myth also describes [773] it as a disk chipped out of ice.

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[1] Or the sun making no progress; compare [illegible], horses racing nose to nose.

A knotted cord or quipu (*dütrusaddjïgà*) is used to add formality to 805
an invitation to another tribe or in accepting an invitation from them. 211
The cord, which is carried by the messenger, contains a knot for each 648
sleep which will elapse before the meeting. One knot is cut off each night: the last one, which is by itself at the end of the cord, represents the meeting. Thus the Havasupai sent one, made by the reservation policeman, to the Navaho at large by a member of that tribe. This had seventeen knots and referred to a dance held in September, 1919. Two instances of quipus brought by Walapai were noted; both invitations of local chiefs to mourning ceremonies. On August 26, 1921 a Navaho, who was not a chief, gave one with ten knots to Supai Jack, a prominent man, with the information that the Navaho would arrive at the Havasupai village in the afternoon or evening of September fourth.

These are not used as mnemonic devices, nor do they use notched sticks in this way.

A family may keep track of the return of a traveler by marking on a 211
stone or post, erasing a mark for each sleep as it elapses.

Six directions are recognized: the four cardinal points, the zenith, 823
and the nadir.

north	mátávigà
west	nyatópovï (sun's setting place)
south	káwévigà
east	nyádjà'álovë (sun's rising place)
zenith	amiávigà or ïmiatávigà (middle of the sky)
nadir	matviálà or àmötávigà (middle of the ground)

The place where the speaker is (àmötátu''waiyü'κ, ground where I am), is not considered a direction. In naming the directions they are given in the order north, west, south, and east.[1] There is no color-direction 822
association.

Color terms are as follows:— 151

ïnyágà or ïnyádj	black
ïnyasígà	brown
àhwö'tïgà	red
gwalasígà	pink
àgwáθïg	yellow
n_yïmsä'và	white
vaséwà	blue-green
vahasígà (?)	blue
vahasïltávágà	green

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[1] The Navaho order is east, south, west, north, zenith, and nadir (Franciscan Fathers, 44; Stephen, (b), 360;) that of the Hopi north, west, south, and east (Fewkes, (a), 33). That of the Pima in lighting a funeral pyre is south, east, north, and west (Curtis, II, 79). The San Carlos Apache circuit is like the Navaho, east, south, west, and north (Goddard, [illegible].) [171]

822 The familiar blue-green confusion occurs here, but the Indians of course recognize and designate the difference between the colors whenever the
151 occasion requires. Spotted (*n̥ʸádígá*) and variegated are not colors.

COMPARATIVE NOTES

The beginning of winter (mid-November) as the initial point of the
171 Havasupai calendar has its counterpart throughout the Basin, Plains,
805 and the interior of British Columbia, according to Cope's summary.[1] In this vicinity, the Navaho year begins about October[2]; the Yavapai in September, and the Southern Diegueño in September or November.[3] This extends the distribution of this type further south. On the other hand the calendar turns on the solstices in the Pueblos and in southern California.

The month names are in general descriptive as in most North American calendars. Unlike the Hopi, Hano, Zuñi, and Southern
x Diegueño, these are not divided into two series of six repeated names.

Some suggested identities among the constellations recognized by
171 tribes in this area follow[4].
821

Luiseño	*No. Diegueño*	*So. Diegueño*	*Yuma*	*Mohave*	*Yavapai*	*Havasupai*
		Hand (5 stars) Begins year November or September				Hoop (5 stars) (Month name, Hand + to come) Begins year November
		Buzzard (in third month) January or November				
		Cilúk (in fourth month) December?				Coyote (in second (month) December
						Cold star (Perseus?) February

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[1] Cope, map 1.

[2] Franciscan Fathers, 35.

[3] Corbusier, 336; Spier, (a), 347. Cope classes the Yavapai case (called Tonto), marked by seed-gathering in September, with the harvest or summer type of calendar beginning, but seed-gathering belongs with the winter round of activities in this region. The Diegueño case is classed with the solstitial type, but there is no authority for this. Their year begins in September (or November, see below) when the weather turns sharp.

[4] Du Bois, (a), 162, 164; Waterman, footnote [illegible]; Spier, (b), 319, 347; Trippel, 378; Corbusier, 336.

171
821

Hulaish or hula'-chum	Mu or amu, mountain sheep	Amu, mountain sheep	A-mau	Amo, mountain sheep	Mo-'u, mountain sheep
(3 stars)		(3 stars)	(3 stars)	(3 stars)	
(Orion)	(Orion)		(Great Bear)	(Orion)	(Orion's belt)

The Southern Diegueño *Hand*, a group of five stars, appears in the morning and marks the beginning of the year, in all of which it corresponds to Havasupai *Hoop* (Fig. 30a). A further identity lies in the name of [805] the first Havasupai month, *hand+to come*. This suggests either that the correct name of their constellation is *Hand*, that the name has been borrowed and used in a new sense, or that this is an old name for the month common to the two, the Diegueño having changed their designation or the Havasupai their constellation. At first sight the greatest discrepancy is that the Diegueño date is September and the Havasupai November. But my Diegueño information was confused, while Gifford obtained November as the initial month from the same informant. I [114] think there can be little question then of the identity of the constellations and the correctness of Gifford's calendar. A confirmation of this solution appears if Luiseño Nukulishpo-ma, his hand, refers to the same star or constellation. This is Arcturus, by Kroeber's identification,[1] a star which rises in the morning in early November. Certainty is added by an identification of Diegueño Buzzard, which rises in the morning in the third month (January), with Luiseño Yungavish, buzzard. The latter Kroeber gives as Altair, which does rise in the morning in early January.

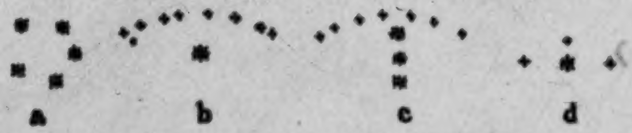

Fig. 30. Constellations. *a*, Hoop; *b*, Coyote and Pole; *c*, Cilúk (Southern Diegueño), *d*, Cold Star (from native sketches).

The configuration of Havasupai *Coyote and Pole* agrees with Southern Diegueño *Cilúk* (which I reproduce from my field notes). (Fig. 30bc) Furthermore both rise in December, if my Diegueño calendar is correct, which is unlikely. Nevertheless, the fact that the constellations figure [805]

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[1] *Handbook*, [illegible].

171 821 only in the early months of both calendars is presumptive evidence of historic connection.

[805] There are some data on the identity of another group in this region. The Havasupai may know the cluster, but I did not record it. This appears to be the three stars of Orion's Belt, called *Mountain Sheep* by Yavapai, Mohave, Yuma, Southern and Northern Diegueño, and *Hulaish* or *Hula'ckum* by Luiseño. I think Trippel is mistaken in identifying *A-mau* (presumably mountain sheep) with the Great Bear; there is no obvious triad in that constellation. Waterman doubtfully questions the identification of the Northern Diegueño group with Orion. Southern Diegueño *Mountain Sheep* is probably the same group, which makes it impossible for *Cilûk* to be the Belt.

211 805 171 In our area the quipu or knotted string record is a formal accompaniment of an invitation to a gathering; one knot is cut off or untied for each day that elapses until the event. Beside the Havasupai, Walapai, and Navaho, this must have been in general use among the Pueblos for it figured in the Pueblo rebellion of 1680.[1] There is also a mythical reference to the device among the Zuñi.[2] The Miwok and the Northern and Southern Maidu have invitation strings identical with these.[3] The Huichol knot strings to keep count of days, untying a knot for each day elapsed. They also enumerate lovers by knotting cords.[4] As a mnemonic device the knotted string is also known to some Mission Indians, the Palonies (a subdivision of the Chemehuevi), the Klallam, Yakima, the Interior Salish of Nicola Valley, B.C., the Zuñi[5], and in a variety of forms in Peru. It is conceivable that this has a continuous distribution from Peru to Canada.

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[1] [illegible]
[2] [illegible]
[3] [illegible], 271; [illegible], 44; Powers, [illegible].
[4] [illegible]
[5] [illegible] Klallam information from Erna Gunther. Leechman and Harrington.

HOUSES

Most Havasupai families have two residences (*hâwa"a*); the group 342 of structures in the canyon occupied during the summer, and a house on the plateau for winter living. The winter house is located in a clearing, [351] just big enough for the house alone, in the midst of a dense cedar or piñon thicket, because those are warmest. The site should be a sandy, gently sloping hillside with a southern exposure. The typical year-round house is a dome-shaped affair, thatched and, depending on the season, dirt-covered. This serves against the rain during the summer. The second type in the summer camp is rectangular, with dirt-covered roof and thatched sides. Besides these the summer camp contains shade structures in a great variety of forms. Two other types are used, both [177] in the canyon and on the plateau, which are considered of foreign origin: a gable roof structure and a polygonal log house built in imitation of the Navaho.

The dome-shaped house may be circular or somewhat elliptical in plan. (Fig. 31 ab.) It is quite conical, for, though the main posts are somewhat crooked, they are not sufficiently so to produce a hemispherical structure like that of the White Mountain Apache. The house is built on a four post foundation: two heavy posts (about 25 cm. in diameter) are set into the ground on opposite sides with their forks interlocking: two lighter posts are set four-square with these with their forks locking into those of the first pair. The space between these primary posts is filled in with an indefinite number of poles, leaving a gap for the entrance. These secondary poles are set in the ground separately,[1] with their upper extremities locked into the forks. Those which do not stand solid are tied at the apex. Flexible poles are tied horizontally around the framework with soapweed leaves, spaced 15 to 30 cm. apart near the bottom and somewhat closer at the top. These ribs do not cross the entrance, which is left free to about the height of a man. In the tightest winter houses, additional short poles are set upright close together all around the circumference, being tied to the horizontal ribs. The frame is now ready for the thatch, which is about 10 cm. thick. Brush of any kind may be used, but in the canyon "white" willow (*[illegible]*) is the best, and next in preference a long-leaved weed growing by the creek (*[illegible]*). The first tier of thatch is tied on with the butts of the bundles resting on the ground; subsequent overlapping tiers are placed butt end up. The space above the entrance is often left open for a smoke-vent, but it

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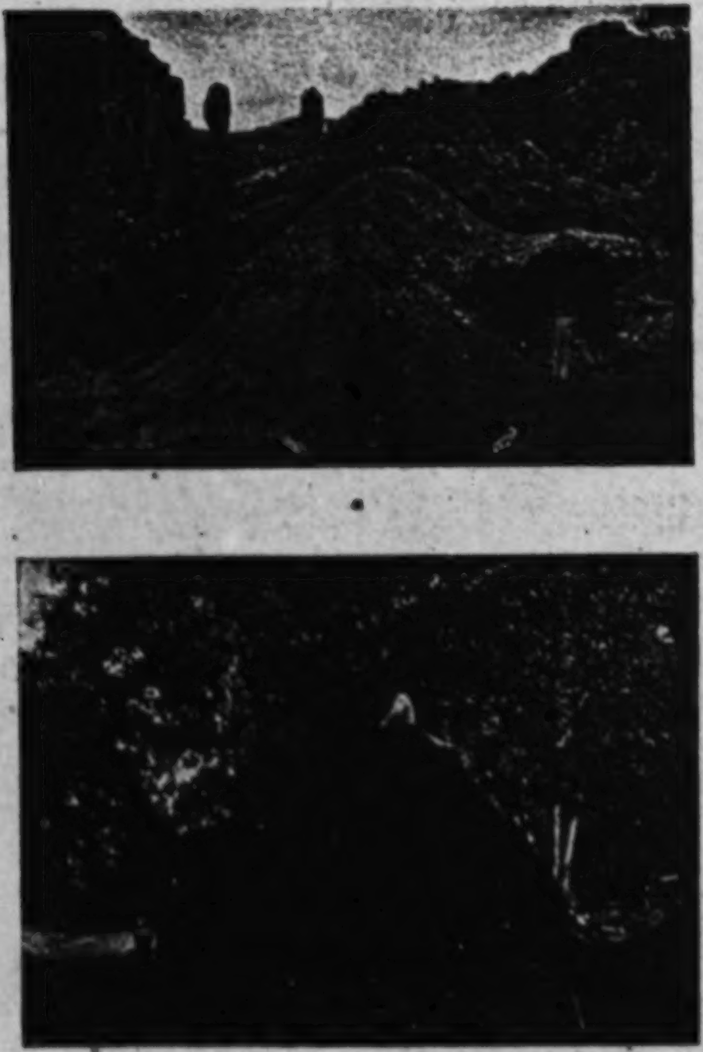
[1] The White Mountain Apache dig a trench in which to stand these and to receive the first row of thatch.

[Text continues on p. 176]

342



b

Fig. 81. Typical Dome-Shaped Houses. a, With dirt cover; b, Without dirt cover.

Fig. 22. A Gable-Roofed House of the Mohave Type.

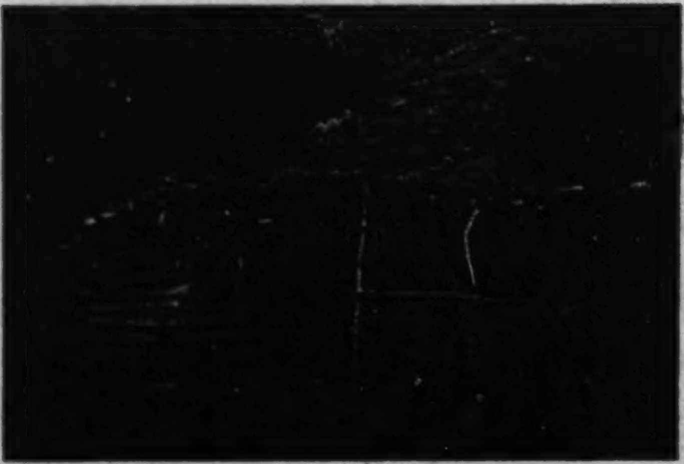


Fig. 23. A Log House of the Navaho Type with a Shade constructed in Front.

342 is sometimes thatched as well and no orifice is left. (Most cooking is done out-of-doors, however.) Flexible poles are tied over the thatch to hold it in place. Dirt is heaped up around the circumference to a height of about 60 cm. Some houses have an entrance-way added. Two stout posts, about two meters tall, are set up at the toe of the two slanting poles which form the entrance. A lintel is set across the posts, and corresponding beams tied to the slanting poles at the same height. Sticks are laid longitudinally between these, and covered with brush and dirt. Sticks are also tied horizontally between the upright posts and the slanting poles so as to form the sides of the entry: long brush is stood against them, and dirt heaped against the base. The door in all types of house is a blanket (never a buckskin) hanging loose from the top of the opening but devoid of a stiffening stick in the bottom. The house is usually heaped over with dirt, especially that for winter living, but the summer rains wash this cover from the steep pitched roof so easily that frequent renewal is necessary. Usually the apex was so poorly protected that smoke had no difficulty in finding its way out. Neither the groundplan nor height of these structures are laid out by measurement (one typical fair sized house measures 4.6 m. by 4 m. in plan and 3 m. to the apex). The summer house is placed with its entrance facing in any convenient direction: the winter house faces somewhat south of east, i.e., where the sun rises.

The ridged house resembles a gable set on the ground. This is [177] thought of as a foreign type. It is nearly square in groundplan, with the corners somewhat rounded (Fig. 32). Two heavy posts are set upright (in one house 3.75 m. apart), supporting a heavy ridge pole in their forks at a man's height from the ground. Poles are laid slanting against the ridge from both sides, leaving a space for the entrance, if that is to be on the side. Others are similarly laid slanting at each end, with the line of their bases 80 cm. from the base of the main post and their upper ends resting in its fork. Slanting poles also fill in the corners, the lower ends arranged around a quarter circle. Slender poles are tied horizontally around the structure about 30 cm. apart. The frame is thatched and covered with dirt in the same manner as the dome-shaped house. A stick is fastened part way up the slanting entrance poles to which a blanket is hung for a door. The space above the door is open for a smoke hole. Some of these houses have the entrance in the gable end, and the summer house even stands with one or both ends open as Shufeldt's and James's photographs show. The whole structure has usually such a low pitch and is so sand-drifted and brush-covered as to be amorphous. A typical house measures 4.5 m. square and 2 m. to the ridge pole.

[Text continues on p. 178]

342

Fig. 34. A Shade or Open-Sided House.

[231]
[492]

Fig. 35. A Rectangular Shade House.

342 The log house built in imitation of the Navaho is a polygonal structure of horizontally laid logs (Fig. 33). The roof is formed of lesser beams [177] which are laid so that each consecutive tier cuts the angles formed by that below, thus drawing the walls into a very flat dome. This is covered with brush and dirt. Such houses are about 5 m. in diameter and about 2.5 m. high.

The second native type is simply the common rectangular flat-roofed shade which has been walled in (Fig. 34). The shade is built on four heavy forked posts (25 cm. in diameter) set in the corners of a square, about 3 m. on a side. Posts are also commonly set at the mid-points of two sides, and sometimes a third row of three is set down the center of the house. In setting such a post, dry sand is poured into the hole in which it stands, the pole is shifted up and down until the sand settles compactly about it, then the hole is filled with damp dirt, which is rammed home. Rafters (15 cm. diameter) lie in the forks of corresponding pairs or trios, about 2.5 m. from the ground. Poles are laid close together transversely on these rafters (or on an intermediate set), on which brush and then dirt is spread. This completes the shade as found in most camps, but if a house is desired three or four thatched walls are added (Fig. 35). Poles are set vertically into the earth along the sides about 30 cm. apart. Light poles are tied horizontally at about the same interval outside of these. This frame is then thatched in the ordinary fashion with long willow brush. Two or three poles are tied horizontally over the thatch to hold it in place. Soapweed leaves are usually used for tying all poles and thatch.

The dirt floor of houses is never treated in any way. In fact, the sand is generally thrown back from the center of the house against the walls in the course of time, so that the structure appears to cover a slight excavation.

Practically all the work of house or shade building is done by men. [462] At least, they perform all the heavy labor of cutting and setting posts and beams. Thatching and covering with earth are done by both men and women. There are no prayers or offerings made when building.

The interior arrangement of the dome-shaped house, the type most 359 in use, is not rigidly prescribed. The fireplace ([illegible]) should be in the center, i.e., not necessarily under the smoke vent. This consists of a slight depression, in which three stones are placed to support a vessel. 352 Beds were usually on the side opposite the entrance. These were slight hollows in which cedarbark mats and rabbitskin blankets are placed. 573 Beds are often located with the head to the east, for in this position the

sleeper is free from troublesome dreams, will sleep soundly, and arise 513
refreshed. The head of the house or a guest would sleep anywhere he chose. A man's personal belongings were hung over his bed. Food, 352
baskets, etc., were placed nearer the entrance; the food furthest from it to guard against animals. If the house was high enough, a pole on which to hang blankets and skins, was fastened across above man height, but ordinarily this was placed at one side. Cooking is usually done [252]
outside.

Every camp has one or more shades which shelter the common 343
domestic activities, and in some instances serve in lieu of a summer house. The shades are built in a great variety of forms; some, in fact, are quite amorphous. The commonest is the rectangular flat-roofed type described above: others are simply a slanting roof, like half a gable, a quarter sphere, like half a dome-shaped house, a barrel vault, and so on. Most are carelessly covered with brush, with dirt banked against them. Ladders (two poles with rungs tied on) are often provided to reach the [417]
roof of a house or shade in order to replace the dirt covering, store corn, etc. These are sometimes logs notched on one face. A cooking shelter may be made of boughs set up in a semicircle before the outdoor [354]
fireplace, forming a breast-high screen.

There are a series of small caves and rock-shelters (opá''ä) along the 342
cliffs at the top of the talus slope which were used during inclement weather, particularly in the spring, during floods, and the uncertain [731]
period when raids were frequent, for they were conveniently located for [722]
escape up the cliffs when the alarm was given. A breast-high wall of rocks, laid dry, was built across the opening. Poles were set vertically in the space above the wall, others were tied horizontally across these, and the frame was thatched. A blanket partly covered the entrance, the open space above it providing a smoke vent.

A little ring of brush is raised for a temporary camp. This serves at [illegible]
least to keep out animals and the blowing sand. The White Mountain [71]
Apache have a similar usage.

Innumerable storage houses line the ledges at the foot of the cliff 343
all along the canyon, standing high above the reach of floods. A stone wall is built about the mouth of a natural enlargement in a crevice to form a little house of a capacity of 3 to 5.5 cu. m. (Fig. 36). The wall is [333]
carefully chinked and plastered with a hard mortar to render it rodent proof. This is made of guano, found in the crevices of the cliff, mixed with dirt. A flat stone is set in the little entrance and sealed with mortar

343 Storehouses resembling the dome-shaped domiciles are sometimes built in the camps to hold the green foodstuffs.[1]

Comparative Notes

342 171 The typical dwelling of the Havasupai, the dome-shaped, brush-covered structure, seems to be the prevalent type in a considerable area of Arizona and the Great Basin. It is true that most of the Arizona types are referred to as dome-shaped or hemispherical, while those of the Basin are described as conical. But we are dealing essentially with

[343]
[291]

Fig. 20. Storehouses under the Cliffs of Cataract Canyon.

the same structure which seems to differ largely in the acuteness of its apex. As a matter of fact most of the dome shapes are sub-conical, and "conical" probably serves Lowie only for a descriptive epithet, for his few illustrations show sub-conical forms. The houses of the western Apache are perhaps the only truly hemispherical ones.

Taking these together we have this form among the Havasupai, Walapai, Yavapai, White Mountain Apache, Papago, Kaibab, Moapa, and the neighboring [illegible]*, Washo, Paviotso, Uintah and Southern

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[m] [1] A small stone ruin stands on a point of the cliff [illegible] (Fig. 20). Most of the walls have been roughly reconstructed as [illegible] by the modern Indians. Sherds are plentiful: corrugated, black-on-white, black-on-red, and Havasupai pottery.

Ute, and it was found by Stansbury west of Great Salt Lake.[1] The Yuma use it for their summer residence. The Navaho hogan is the same structure, perhaps a little more substantially built, but bark roofed like the Southern Ute house and dirt covered like the Havasupai. This brush lodge is used by the Mescalero and Jicarilla, but both groups prefer the tipi. The Lipan do not build this form at all. The San Carlos Apache house is hemispherical, but the poles are arched rather than locked together. To the south the Seri construct a rough elongated hemisphere of a series of arches, brush covered. This is a tiny affair more like the Havasupai sweatlodge than the dwelling, but inasmuch as it is dome-shaped and the other tribes of northern Mexico make use of rectangular structures of another sort, it may questionably be included with our group above. The Luiseño house, conical and brush covered, should probably be included as well, but Sparkman's description leaves room for doubt. The Pima and Maricopa have a composite type: a thatched and dirt covered hemisphere of arched poles is raised over a rectangular foundation.[2]

The covered entrance-way of the Havasupai is also found in the Navaho hogan.

This form of lodge is typical then of an area principally west of the Pueblos and in the Basin. It has marked analogies in the north in the mat-covered, hemispherical lodges sometimes used by the Wishram, Wasco, Nez Percé, Klamath, and some of the interior Salish, and in the Plains tipi to the east. Some of the eastern Basin peoples, in fact (Northern and Wind River Shoshoni, and Ouray Ute) build tipis which are covered with brush or grass in place of skins.[3] It has been conjectured that the tipi of the Plains and the wickiup to the west in the Basin are related forms. But it is not clear whether these Shoshonean structures are to be regarded as adaptations of the Plains tipi or whether the latter is a specialized form of an earlier type represented by these and the bark covered tipi of Canada. The relations with Californian types are not clear.[4]

One further comparative point should be observed here. The Havasupai erect the lodge on a four-pole foundation. This is also the case with the Southern Ute and it is true of the tipis of the same people and

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[1] [illegible]

[2] [illegible]

[3] Lowie, [illegible]

[4] See especially Mason, [illegible] Kroeber, [illegible] Plate 14; [illegible] Spier, [illegible]

171 342 the Wind River. Lowie has pointed out their resemblance in this regard to the Blackfoot and Crow, and, to complete the list from Wissler's notes, the Sarsi, Hidatsa, Salteaux, Comanche, and possibly the Kiowa Apache.[1] It is important to know the foundation pattern for the other tribes of this area. For if they all use four poles then Lowie's suggestion might be reversed; the four-pole tipi of the Blackfoot, Crow, and others being derived from the Basin peoples. The Navaho at least use a three-pole foundation for the hogan. This is analogous to the usual Plains tipi. We should know what the Jicarilla and Mescalero use to solve this puzzle.

The gable house is typical of the Mohave, but is used by the Havasupai and White Mountain Apache. It is characteristic of this form that the walls closing the gable ends slant as well as the sides and that the corners are rounded. The Southern Diegueño house is presumably a related type, although it lacks these features. We should probably look to other southern and central Californian tribes for similar forms.[2]

The Navaho log cabin of polygonal groundplan is copied by the Havasupai. It has been suggested that this structure is related to the log roofing of some prehistoric subterranean kivas.

171 343 The flat-roofed, rectangular shade is very widely used but it is not usually walled in. When three or four sides are closed it forms a definite type of house, which furthermore seems to have only a local distribution. This includes the Havasupai, Moapa and Tointsee" Paiute, and Mohave. These Paiute houses are said to have sloping roofs, but I take this to be only a minor difference. The rectangular, gable-roofed house of the Cahuilla and of the modern Southern Diegueño may belong to the same type. The walled-in shade seems to be related to a type of structure used to the south by the Pima, Maricopa, Papago, and Yuma; that is, a similar rectangular house of which the walls are vertical poles wattled with brush and mud. This in turn bears resemblance to the houses of the Opata and Jumanos in northern Mexico.[3]

The matter of house types is further complicated by the reports of communal dwellings in southern California. We know little about these.

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[1] Wissler, [illegible], 125.

[2] [illegible], 277. [illegible], 2nd ed., 163. The [illegible] house referred to by Lowie [illegible] [illegible]

[3] [illegible]

[illegible]

DRESS AND ADORNMENT

Clothing

Both sexes are moderately well clothed, in fact, Garcés was struck in 1776 with their contrast in this respect to the scantily clad Colorado River tribes.[1] A man wears a headband, shirt, breechclout, moccasins, leggings, and in more recent times, trousers. A woman's dress is a short under-apron, a dress consisting of two aprons, a long one worn in front and a shorter one in the rear, moccasins, and blanket. Young children go entirely naked; at six or seven boys are given shirts, and as they approach puberty they don nether garments. Girls assume complete dress earlier than boys. There are no stylistic differences of clothing or hair dressing marking maidens from wives. 291

Children run barefoot. Ordinarily women go barefoot about the camp where the sand is soft, but wear their moccasins to the fields or on journeys. Men, on the other hand, are never without them.

Men usually take pains to avoid exposure. The breechclout is worn at all times, even in the sweatlodge and when bathing. Women are equally careful to retain the under-apron, sleeping, bathing, and in the sweatlodge. The dress fashioned of two aprons is open down the side and exposes its wearer's thighs when seated: the front apron is drawn back between the legs.

All skin clothing is made by men, for the whole skin industry from flaying the carcass to the manufacture of women's dresses[2] is in the hands of the men. 294 281 482

The man's shirt ([illegible]) seems to have been based on the poncho type of the Plains, but only variants resembling European garments are now extant. Cushing observed that the shirt was 291 294 [171]

> made from a single deerskin, a transverse slit in the center serving as a neck-hole; the sleeves, of two pieces of the same material, heavily fringed, are attached to the edge of the skin, either side of the neck-hole, and open down as far as the elbows. Save the seams at the shoulders and from the elbows to the wrists, no sewing is necessary in this peculiar coat; yet it is made to fit admirably by means of a belt or band, with which the ends falling down front and back are gathered about the waist.[3]

I was told that shirts are also made of two skins sewed together along the straight shoulders and down the sides. True sleeves are inserted. Triangular flaps were added to the neck hole front and back: that in the front is said to have been somewhat the broader. The type now in use

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[1] Coues, 403.
[2] Compare the Western Apache ([illegible]), [illegible]. [Text continues on p. 185]
[3] Cushing, [illegible].

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177

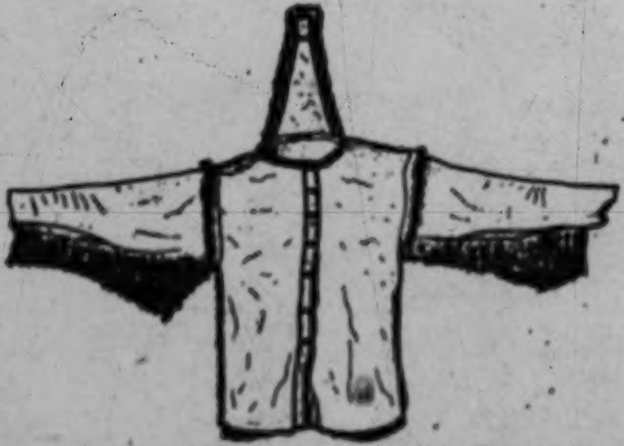

Fig. 27 ([illegible]). A European Variation of the Plains Type of Man's Shirt. (The neck flap is lifted to show its decoration).

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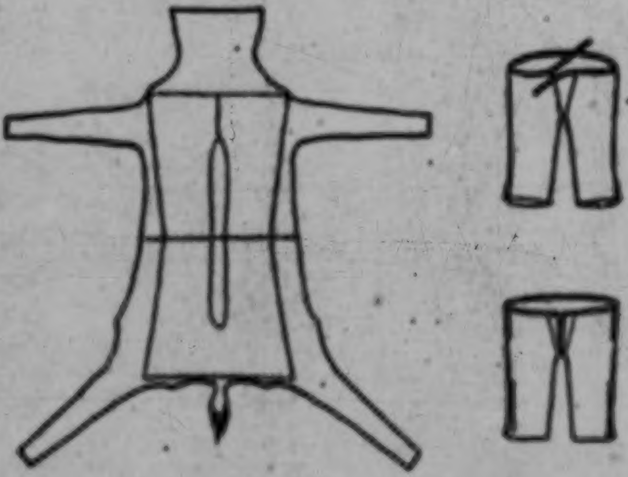

Fig. 28. Diagram Illustrating the Cutting and Construction of a Man's Trousers.

is a coat, split down the front, and lacks the front flap (Fig. 37). All 291
seams are sewed with a running stitch; the two raw edges of adjacent 294
parts which protrude on the outside are slit into fringes. Two pieces to be cut into long fringes are inserted in the seam under each sleeve. The only other decoration is on the triangular flap (*mukliθyéva*, collar tail). Some of these are beaded (*supóda*, beads), the design having no [531]
significance. Others have a narrow green line (using a copper ore) painted around the margin and all are fringed. Another type of shirt was even more definitely a poncho. A buckskin was folded in half, a slit cut for the head, the legs cut off and sleeves added, and slit down the front like a coat.

Warmer shirts are made of deerskins, tanned with the hair on, and worn with the hair side out.

The breechclout is a strip of buckskin or cotton cloth obtained from the Hopi,[1] about 30 cm. wide, and with short flaps hanging over the [439]
belt cord fore and aft.[2] These flaps are never decorated. Breechclouts are worn at all times, even with trousers, when the flaps hang inside.

Trousers (*iγpil mikíθl*, buckskin trousers) are patterned ultimately on early Spanish models; short waisted, knee length, and open at the [177]
knees. One type is cut from a doubled deerskin (Fig. 38); one of the duplicate pieces, the front, is then cut in two from waist to crotch. The seams are down the inside and outside of the leg; the waist is gathered somewhat; and a separate belt, 5 cm. wide, is added. This garment hangs just below the knee; the outer seams being open for a short distance along the leg. The trousers are open in front, failing to meet at the belt by about 10 cm., but this is covered by the breechclout. A second type has a triangular piece inserted in this space; this is then split. In this type the sewing of the outer seam is not continuous, and silver buttons are also added for decorative effect.

Some men affect Navaho dress; the knee length leggings bound with [illegible]
woven ribbons, the broad belt with silver bosses, the silver studded 291
wristlet, rings, and the turquoise and shell necklaces of the Pueblo and 301
Navaho.

The woman's dress is really two aprons; that in front reaching 291
from breast to ankles, that behind hanging from the waist. These are 294
belted with a Hopi woven belt. The front piece resembles a butcher's [439]
apron; a deerskin is hung from the neck by a broad loop, with a thong holding it about the waist[3] (Fig. 39). The neck of the skin is turned

[286]

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[1] [illegible]
[2] The Havasupai state that the [illegible] have long flaps.
[3] [illegible]

[Text continues on p. 187]

1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

29/
281

[p.126]

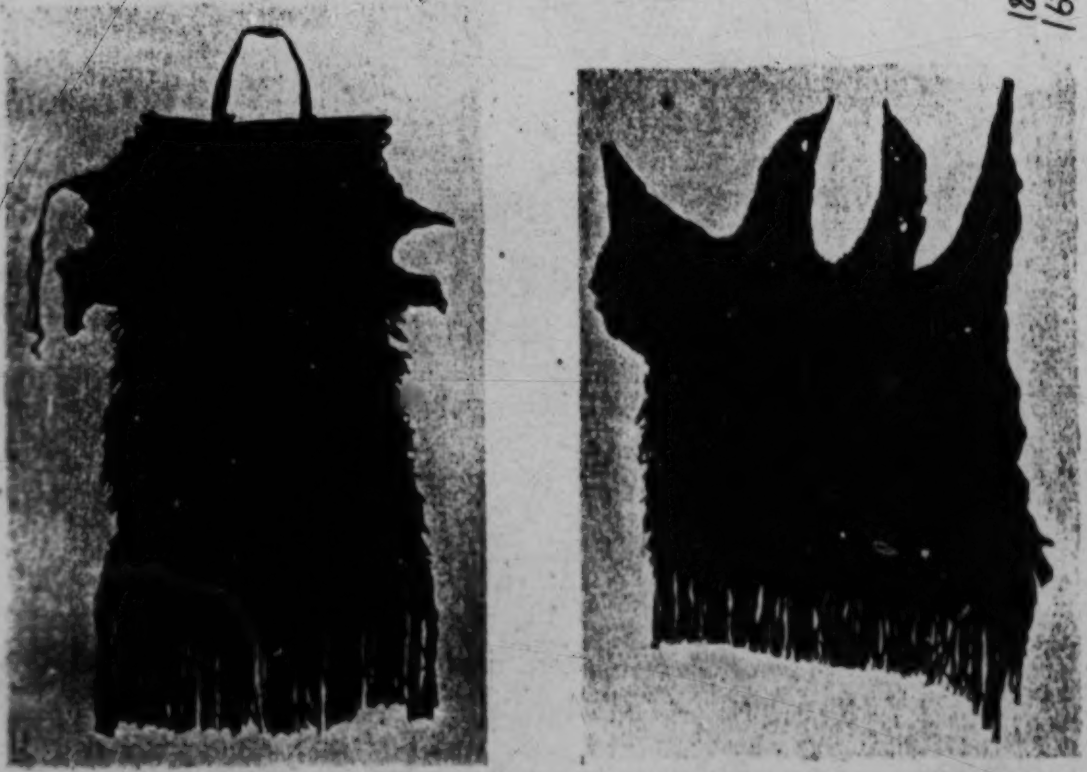

Fig. 30 (50.2-1296ab). A Woman's Dress of Buckskin. *a*, The front apron; *b*, The back apron.

back on the breast in a broad decorated flap; the sides of the apron are 291
fringed and the bottom slit into long fringes. Both the neck loop and 294
waist thong are fastened permanently, so that the garment must be put
on over the head. The woman's dress is made by the men.

The skin is worn flesh side out. It is laid flat on the ground and
lines drawn with the aid of a bow, the back furnishing those for the curved
bottom and the string the straight lines. Lines are marked with a wet
stick or charcoal; formerly paint was used as well. The length of the
dress is measured on the woman for whom it is intended, so that the
breast flap may be turned down at the top of the sternum. The fringe
on the breast flap consists of short broad tabs; the line delimiting them
being heavily scored and wetted on the wrong side, otherwise, since the
skin of the neck is thick, they do not swing freely. The fringes at the
bottom are first cut in broad strips; these are drawn and cut parallel to
the median line, not radially. Subsequently these strips are slit into
narrow fringes while resting on a block of wood. The two at the ends
however are not slit lengthwise, but their edges are cut obliquely in
short fringes. Each edge of the apron is similarly cut into short oblique
fringes. A neck loop, 2 cm. wide, is adjusted on the woman's person and
sewed in place with a thong. The tab ends of this loop which hang over 291
the breast flap are sometimes slit into strings on which short bone tubes 294
or dewclaws are hung as rattles (atwel). On old women's dresses these 301
jinglers include deer eyes (which lack special significance). They are 531
prepared by cutting a tiny hole to drain the fluid within, blowing them [237]
up to dry, inserting a kernel of corn, and tying the aperture. Similar
rattles are also threaded on the side fringes for a short distance down
from the belt. The scored line on the breast flap is sometimes filled
with paint; other ornamental lines are sometimes painted on it. The
loops in the edges of the neck skin formed by the tanning pegs are also
ornamental. A thong is tied between the forelegs of the skin to go in
back of the waist. The outside of the garment then receives a liberal
coating of red paint. One such dress took five hours to make.

The back piece is an apron hanging from waist to ankles. Like the front 291
piece, the fringes at the bottom are long and those at the side short and cut 294
obliquely. A long extension at each side of the waist line, cut from the
length of the skin, serves as a tie-string. Two long horn-shaped pieces,
with their edges serrated, are added at the middle of the waist line so as
to fall down over the outside of the garment by way of decoration. The 291
rear apron is put on before the front apron which then laps the back
piece at each side. A buckskin belt of semilunar shape, slit in fringes

291 (almost an additional apron), is arranged to hang in front. A Hopi woven belt is then added as a girdle.

291 237 301 Strings of rattles are tied at various points along the woman's belt. These are small deer or mountain sheep hoofs, or sometimes tubes cut from the leg bones of jack-rabbits, cotton-tails, and wildcats, and in recent times metal jinglers. They are strung on the fringes of a doubled length of skin (Fig. 40b).

291 The underskirt is a short, somewhat crescentic apron which hangs in front to just above the knees. Like the back apron, it has two extensions for tie-strings. The actual tie is made with a thong which passes through both strings. [291] The waist line is hemmed (sewed with a narrow thong in a running stitch); the sides and bottom fringed, and the tie-strings serrated (Fig. 40a).

[237]
[301]

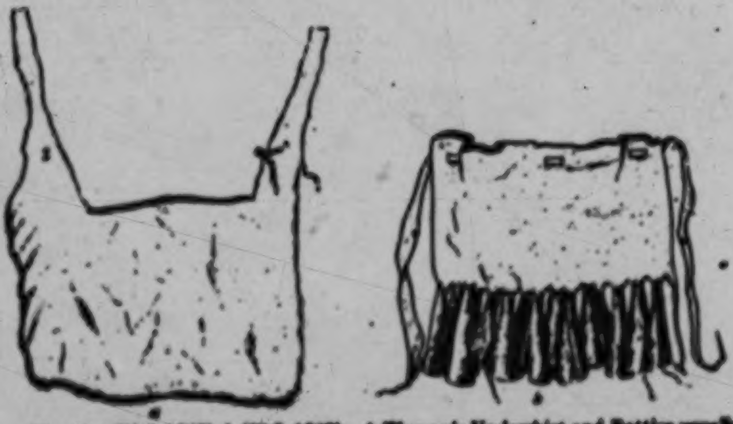

Fig. 40 a (50.2-1967), b (50.2-1952). A Woman's Underskirt and Rattles usually tied to a Woman's Belt.

281 286 [291] Small blankets woven of rabbitskins are worn as robes by the women. On occasion a man would wrap a blanket about his body, passing it over the right shoulder and under the left arm.[1] These also furnish bedding. Jack-rabbit (*qválá*) and cotton-tail (*hálú'o*) skins are cut round and round into long strips. Two of these are rolled together [283] on the thigh into a rope. This is wound to and fro between two parallel rows of pegs, and strings, obtained from the Hopi, are twined through

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[1] Clothing is never fashioned of rabbitskins.

[Text continues on p. 181]

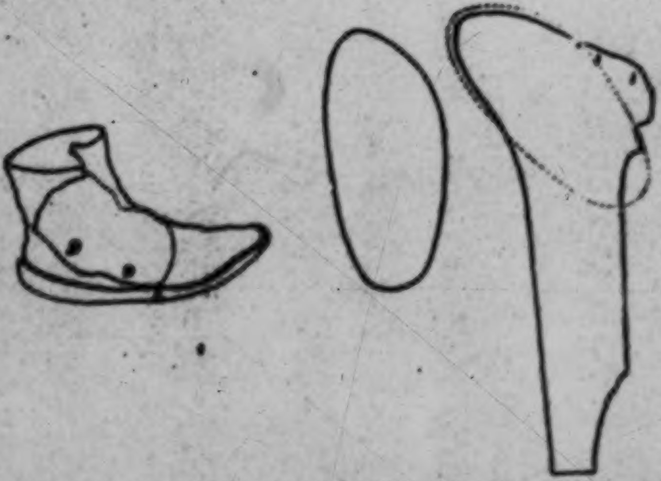

Fig. 41 ([illegible]). A Man's Hard-Soled Moccasin with Upper and a Diagram showing the Method of Construction.

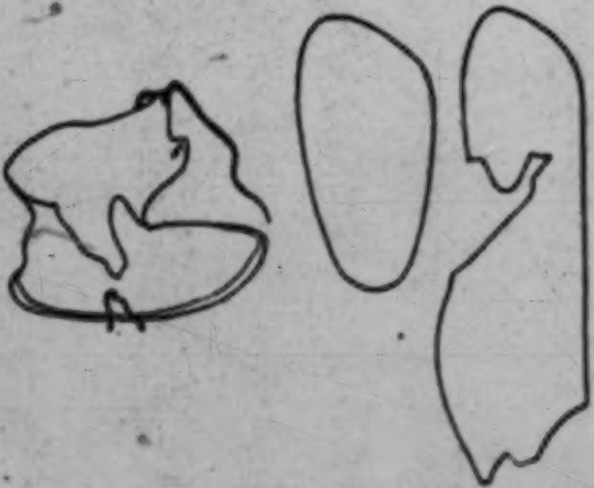

Fig. 42 ([illegible]). A Man's Moccasin with Single Piece Upper cut to Form a Short Tongue.

281 this warp at intervals of 5 cm. Blankets are fairly rectangular; specimens measuring 75 by 125 cm.; 125 by 140 cm., and a mattress 65 cm. 286 square. The sixty rabbitskins or so necessary for a good-sized blanket are gathered from time to time. The skins are not tanned. Such blankets are quite heavy. Women do not like to go without their shawls, [291] at least outside the camp, but I doubt that the sentiment is as strong as [171] at Zuñi.[1]

Hard sole moccasins are the universal footgear.[2] Women sometimes 291 wear the man's type, but their regular style is like that of Pueblo women, 294 with a long upper which is wound around the leg. The man's moccasin

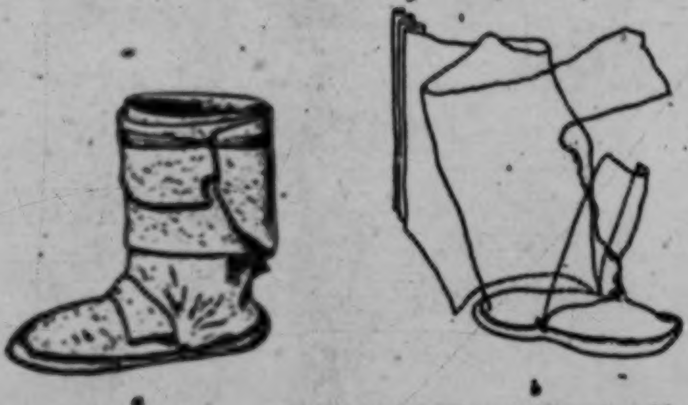

Fig. 42 a (50.2-1376a), b (50.2-1377a). Woman's Moccasins with Ankle Flaps.

consists of two pieces. The sole is made of the neck skin, the thickest part of a deer hide. In all types the sole comes well up the sides and toe, being shaped and puckered. Three styles are used in the upper of men's moccasins ([illegible], sing. or pl.). The commonest is a single piece lapping at the outside of the foot, where it is fastened with Navaho [439] silver buttons (Fig. 41).[3] A short thong is tied through upper and sole at the bottom of the opening for reinforcement. A second type also has a single piece upper, but so cut as to form a short tongue, which the upper laps at the inside of the foot (Fig. 42). The third type resembles that of the

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[1]The modern shawl hung to the back like that of the Colorado River tribes. It is formed of four handkerchiefs sewed together. Two corners are tied under the chin. The modern dress is also like that of the [illegible] people. An undershirt is universally worn.

[2][illegible] moccasins, sandals, [illegible] shoes are made.

[3]This is the type shown by [illegible], [illegible], Fig. [illegible], for the Zuñi.

woman's moccasin. This differs from the woman's type only in that the 291
ankle piece is short. Two sets of tie strings are furnished in the older 294
style of fastoning as shown in Fig. 42; a short thong ties into a corresponding hole, a long thong is wrapped several times around the ankle before tying. The tops of moccasins were sometimes turned down inside to
present a finished edge. Porcupine quill decoration (*gueuwa tapi'*) was 531
then added in a band encircling the top about 1 cm. from the edge. The [237]
band was 1 to 2 cms. wide, the quills standing vertical, black, red, and green alternating. The quill (*gdiikñaydmid: gdiida*, porcupine) was flattened before it was applied.[1] Men's moccasins were usually painted red, but there was no other decoration, appendages, etc.

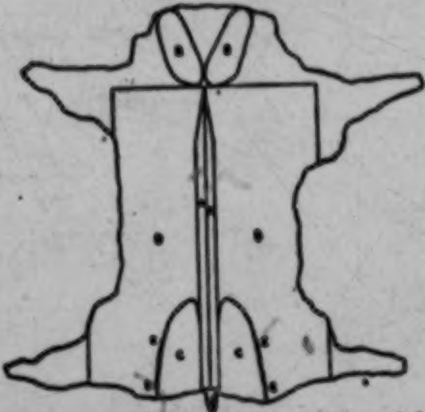

Fig. 44. Distribution of the Pattern for the Woman's Moccasin.

The woman's moccasin (*pak'emakãnyõ'*) has a two piece upper, a toe 291
piece and tongue in one, and a long ankle flap.[2] This flap is worn wound 294
around the ankle, not the calf as Pueblo women wear it. The single tie-string is wound over this and its loose end tucked under a fold. The pattern is distributed as shown in Fig. 44. The deer hide is folded lengthwise and split from tail to neck. Tie-strings (A), 2 to 3 cm. wide, are cut. The contour of the sole (B) is marked on the folded, thick neck skin but each sole is cut out separately. The toe and tongue piece (C) are marked on the next thickest part of the skin, the withers, using an old upper as a pattern. A leaf of narrow-leaf yucca is chewed into the edge of the sole,

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[1] The method of coloring them is forgotten.
[2] This is in general the Hopi pattern described by Wissler, (a), 166.

291 so that it can be turned up and puckered. Sinews are chewed and rolled on the thigh. The toe-tongue is then sewed to the sole with these, begin-
294 ning at the toe and working toward both sides (Fig. 43). The stitching is concealed; the sinew passing but partially through the two pieces of hide. The ankle flap (D), from which legs and fragment of neck are roughly trimmed, is fitted to the leg; a line being drawn on it around the heel between the midpoints on each side of the foot (E). The ankle piece is now sewed to the sole along this line; the long free end being on the inside of the foot. Little reënforcement thongs are inserted on each side where the uppers meet the sole. The upper edge of the ankle flap is serrated: this edge is turned down outside when the flap is bound about the ankle.

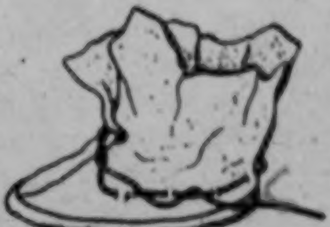

Fig. 45 (50.2-1280a). A Buckskin Overshoe for use in Snow.

An overshoe (makanqalvaded) for use in the snow[1] is made of an oval piece of buckskin extending 15 cm. beyond the sole on all sides. A thong runs through holes around the edge. This is stuffed with soft, crushed cedar-bark and drawn up around the moccasin. These are also attributed to the Walapai. Another type (Fig. 45) but little larger than the ordinary moccasin is really a one-piece moccasin to which a hard sole has been added. The upper is sewed from toe to instep and part way up the heel. This leaves two flaps which fold about the ankle above the tie-thong which is threaded through holes cut but a little above the sole.

PERSONAL ORNAMENTATION

302 Havasupai styles of personal decoration are not extravagant: hair dressing, painting, and tattooing are only moderately developed.

Men wear their hair full length, to the small of the back, parting it front and back at the ears. The front hair is banged across the forehead just below the eyebrows, leaving the hair at the temples to be cut off on the level of the nipples. The long thick hair is bundled back and forth on itself to lie at the nape: the knot (gädabded) is bound around with
[439] a fillet,[2] a woven ribbon of Hopi or Navaho manufacture, or a band of
[301] buckskin. The last is broad enough (6 cm.) to conceal the entire knot

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[1] Netted snowshoes are not known.
[2] Cushing, (a), 342.

with the exception of the top. It is decorated with a band of indiffer- 302
ently colored porcupine quills similar to that placed on moccasins. A 301
headband or a squirrel skin cap is added to confine the hair. One such band (50.2-128) is made of a strip of deer legskin, with the ends sewed with a running stitch. (The sinew, as in all sewing, is prevented from pulling out by a simple knot in each end.)

Women's hair is banged below the eyebrows to the outside of the 302
eyes and at the sides and back to the shoulders or a little below. When rather long it tends to fall in front of the face; it is then brushed back, not over the shoulders, but so that it can be caught under the chin. Or the locks above the ears are tied together at the occiput, enclosing those at the temples.[1] Girls' hair is dressed like that of their mothers. Cushing observed that the small boy's hair was cut short except for a long tuft on top, "like the crest of a quail."

Feathers are, perhaps, worn only on gala occasions; their function, 237
when worn at dances, by men and women, is to cause the rain to fall. 301
Only eagle feathers are used and the down is preferred to the plumes. [789]
The typical decoration is a bunch of down, 20 to 25 cm. long, pendent in the back from a cord, 10 to 15 cm. in length, tied to the top of the head. (The cord, lapping the quill, is bound to it with a wrapping of sinew.) Plumes are also stuck upright in the headband at the right temple. One specimen (50.2-1625) consists of two plumes 37 cm. long, placed side by side, and held in place by a sinew lashing and a peg piercing both. Two small downy feathers are lashed to the shaft of each at its tip.

> Often a comb of long splints, beautifully plaited together with colored threads, is thrust into the headband, to which two eagle plumes, either white or red, are attached by cords, so as to float about in the wind.[2]

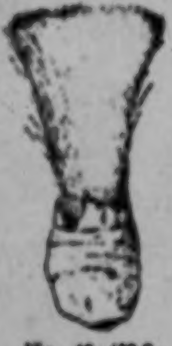

Fig. 46 (50.2-1604). A Mescal Fiber Hairbrush bound with Buckskin. 412

The hairbrush (kï'ï, any brush) is a bundle of stiff fibers from mescal leaves, folded in two, and bound with buckskin halfway to the free ends. A cap of buckskin or cloth is stuck over the butt with piñon pitch and tied about with a thong. A new brush is 11 to 13 cm. long by 2 to 4 cm. in diameter (Fig. 46). As the fibers break off in use, the end is evened by burning. The principal use of brushes is by women; men, as a 302

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[1] It is not held in the mouth in the manner of the White Mountain Apache.
[2] Cushing, ibid., [illegible]

302 rule, use their fingers. Some attention is given to washing the hair with
[515] yucca roots, but not that of the Pueblos. A little mountain sheep grease
worked up in the hands is rubbed on the hair to make it shine.

According to informants, hair cuttings are burned so that the birds
[825] cannot use them in nest-building, which the natives would not like. But
I noted that hair clippings were left strewn about the camps. No care is
taken of nail pairings.

Older men wear scanty beards and moustaches, but facial hair is
usually plucked out, except from the tender spot under the lower lip.

Necklaces are worn by both children and adults. They are not
301 [439] made locally but obtained from the Mohave through the Walapai.
Arrowheads are strung on them, or a single specimen is hung about the
neck on a thong, or sewn to the shoulder of the shirt, like an epaulet, to
[751] prevent sickness and bad luck.[1] One specimen (50.2-1621), modern in
[171] type, but showing affinity with the Colorado River tribes, is a single
string of trade beads, alternately blue and white in centimeter lengths,
from which hangs a roughly crescentic shell pendant. Usually such
[439] necklaces consist of many strings similarly arranged. Men also wear the
shell and turquoise type obtained from the Navaho and Hopi.

When infants are one day old, the lobes of their ears are pierced by a
304 relative or friend with a sharp twig. A cotton cord is looped through to
keep the hole open and deer or mountain sheep grease smeared on to
soothe the pain. The action is said to be ornamental in intent, and with-
[751] out esoteric significance, but piercing the ears is supposed to prevent
deafness—despite an obvious example to the contrary! Ear pendants
301 are worn by persons of all ages. These are turquoise or abalone beads
[439] hung on short cotton cords obtained from the Hopi; 5 cm. long for men
but 15 cm. for women, so as to hang level with the collar bones.

> Huge earrings of silver or beaded cactus thorns, plugs of colored wood, or buttons
> [304] are stuck into the ears, which are pierced one, two, three, and four times.[2]

Beside those of silver, bright red finger rings are made of the flat
301 spines of the barrel cactus. Holding the spine between thumb and fore-
306 finger, a brand is touched to its middle, until it can be sprung into a
ring ([illegible]; [illegible], finger, hand; [illegible], barrel cactus spine). These
are purely decorative.

While *face painting* ([illegible]) is indulged in by both sexes and all
302 ages, it is neither very brilliant nor in daily use. To be sure, girls paint
themselves more frequently than matrons in order to enhance their

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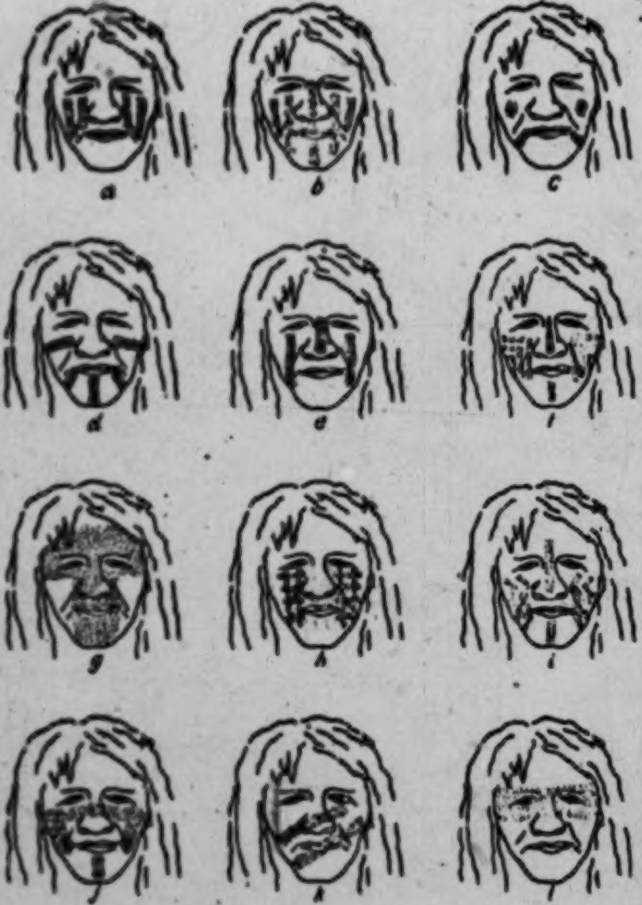
[1] [illegible] to ward off lightning, as among the Hopi (Hough, [illegible]).

[2] Cushing, [illegible]

[Text continues on p. 196]


a
b
c
d
e
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g
h
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Fig. 47. Styles of Facial Painting.

302 charms, and old women are given to the practice. All painting is decorative; quite devoid of esoteric significance. The most common decoration, particularly that of the old women, is painting the front of the face, within the frame of the hair, red.[1] Equally common are two red spots, one on each cheek bone. Infrequent styles, worn by men, are similar spots, of red, but bordered by sienna, and three horizontal lines on each cheek with a stripe down the forehead. The styles shown in Fig. 47 are redrawn from sketches by a native, who arranged them in the order of their popularity; styles *g* to *l* are but infrequently used. All of these styles were said to be in use by young women, but sometimes young men would use *e*, *g* and *h*, while *h* was peculiar to little girls. It seems rather that there is great latitude in the use, form, and coloring of these paintings. Ordinarily executed in red, black, sienna, or white may be used, except that *g* was said to be red alone, *h* red or sienna, and *l* blue. The figures are frequently bordered or filled in with a second color, as white between red or black in *a*, sienna around red dots in *c*, or a sienna border within the figure in *j*. There are no special names for these styles of painting. The old style apron-dress left women's legs exposed; old (?) women painted them red from ankle to knee.

Red paint is not obtainable near the village, but is taken from a
306 mine on Diamond Creek in Walapai territory. The mine entrance is a
317 small orifice in the face of a cliff, which can only be reached by a ladder. Only one man at a time can enter, crawling flat, dragging a sack under him. The powdered red clay is scooped into the sack, which is held under the arm as he backs out. This is dangerous work, for more than one man has been killed in the crevice. A second mine is located east of Grand View in their own range. Black paint (*matiñgwidjij*, black earth) is scraped from a stratum in a trench at Pine Springs, also in Walapai territory. Charcoal is not used. The red and black powders are kept
306 in little buckskin bags, sewed with a running stitch, with a thong bound about the neck. The red powder is sometimes mixed with water so that it can be rolled into a ball and kept in a bag in this form. Powder is scratched from the ball with the thumb nail until a pinch is collected in the palm. Cold grease, preferably deer, is kept in another bag; it will not spoil for a month or so. It is chewed until soft, kneaded with the
[302] powder in the hand, and smeared on the face with the fingers. Black paint is not mixed with grease, but a stick, moistened in the mouth, is inserted in the nearly closed neck of the bag. For a white paint (*matiθá'a*

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[171] [1] The Walapai are said sometimes to paint their faces black in this manner instead of red.

white (?) earth) the gypsum found in Cataract Canyon is roasted in ashes for half a day. When cool, it is ground to powder, and mixed with water for use. This is always prepared fresh when desired. Sienna paint ([illegible], mescal—) is the dried juice of roasted mescal (p. 105). The stick or small bundle of yucca fiber used as a brush is rubbed on a lump of this paint wet with saliva. 296 302

Children paint their faces with the colored scales from butterflies' wings.

Tattooing (*[illegible]*[1]) is very moderate, consisting usually of small decorations on the center of the forehead, less frequently on other parts of the face, occasionally on the back of the hand, but never on other 304

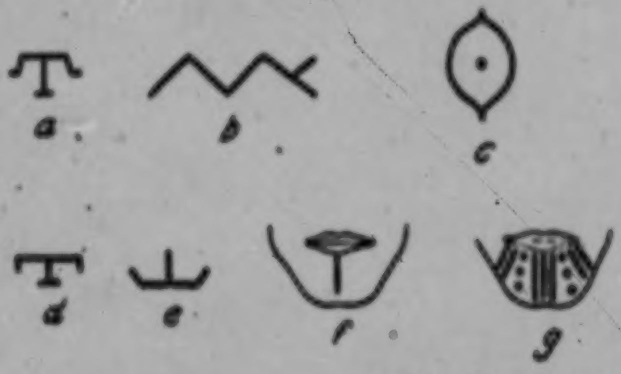

Fig. 48. Tattoo Designs. a-e, Center of man's forehead; f, g, Woman's chin.

parts of the body (Fig. 48). Besides those figured, others consist of a spot on each cheek, or a small circle in the center of the forehead. Tattooing is used by men, women, and children, with purely decorative intent. The design is pricked in with cactus spines which are moistened and dipped into ground charcoal. More charcoal is rubbed into the punctures during the four or five days succeeding before the wounds heal.

COMPARATIVE NOTES

The problem of dress in the Southwest is not a simple one, for the original styles have been obscured both by successive adoptions of colonial Spanish patterns and by the apparent introduction of Plains garments. The changes in the colonial garments and their adaptation, principally 177 291

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[1] Also signifying writing: [illegible] means both photograph and [illegible].

177 by the Pueblo and Navaho, suggest a fascinating problem which ought
291 to be open to analysis, but will not be attempted here.

We are dealing here with an area in which two styles of clothing
171 prevail. For men, these are either sandals, kilt or apron, and cloth
poncho, or else moccasins, leggings, breechclout, and the Plains shirt,
291 which is essentially a skin poncho. For women, the types that correspond are sandals with either aprons or the dress of the Pueblo women, an uncut square of cloth, or again moccasins and the Plains woman's dress.

The characteristic Californian man's garment is the apron of fiber or skin. For example, on the borders of our area the Achomawi, Atsugewi, and Southern Diegueño men wear a single apron in front and never affect the breechcloth. The Mohave use either breechclout or apron. The apron is presumably related to the traditional garment of the Pueblo, a woven kilt, persisting today only in ceremonial dress. The Navaho make use of a broad fringed belt which to the Franciscan Fathers suggests a kilt.[1]

All the other Southwestern tribes and their neighbors wear breechclouts. This is recorded for the Uintah Ute, Paviotso, Chemehuevi, Havasupai, Yavapai, Tonto Apache, Yuma, Cocopa, Maricopa, Pima, Navaho, and the Pueblos of Taos, Picuris, and Pecos. It is implied in the Plains dress of the Northern Shoshoni and Jicarilla, and undoubtedly was used by Mescalero and Western Apache and by the Paiute.[2] Even
[177] where trousers of Spanish or later patterns have displaced the Pueblo kilt, the breechclout is worn, as at Zuñi, beneath the trousers.

The breechclout is then characteristic of the whole area westward to the Californian border, excepting only the Pueblo of the prehistoric period. There is some variation even in this simple garment. The typical Plains form having long flaps pendent front and back is that of the northern Pueblos, Taos, Picuris, and Pecos. Other Pueblos and the Havasupai, Maricopa, and Cocopa wear it with short flaps. On the other hand that of the Mohave is long again, while that of the adjacent Yavapai has a long flap in the rear.

The Pueblo trousers are ultimately derived from Spanish sources;
171 short-waisted, knee length, and open at the knee. The Havasupai form
177 with the outer seams open at intervals is identical with the Navaho,
291 from which it is probably derived. Kaibab Paiute are also shown in one

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[1] [illegible], 114; Franciscan Fathers, [illegible].

[2] [illegible]; Lowie, [illegible].

of Powell's illustrations wearing trousers, or perhaps only long fringed [?]|
leggings. One curious feature about the Havasupai and Zuñi garments [??
is that they are made from two straight pieces which fail to meet at the 29|
belt in front, leaving a space to be covered by the breechclout. This suggests an origin of the pattern in two long leggings attached to the belt, but the case is inconclusive.[1]

The Plains man's shirt is found throughout this area, though it is [?]|
probably not so commonly worn as on the Plains. It is essentially a 29|
poncho of skin, as Wissler has demonstrated, yet always with a well-defined pattern. It is precisely the Plains form which we encounter everywhere. It is recorded for the Lemhi and Wind River Shoshoni, Jicarilla, Mescalero, and Western Apache, Taos, Picuris, Pecos, other Rio Grande Pueblos, Zuñi, Hopi,[2] Pima, Mohave,[3] Yavapai,[4] Havasupai, Paiute,[5] Uintah Ute, Achomawi, Atsugewi, and Klamath.

Wissler has made a case for the origin of the Plains shirt pattern in the cloth poncho.[6] The older Havasupai type and that of the Yavapai lend corroboration; both are folded skins slit to pass over the head. The woven poncho is at least characteristic of the Pueblos in our area, as well as in use throughout Mexico and the cordilleran region to the south. The Navaho also have the typical form; a blanket so woven that a slit remains in the fabric. The Southern Diegueño prepare a rabbitskin blanket similarly. Yet, both the Hopi and Navaho[7] make a cloth poncho which, by the addition of short lengths of cloth to cover the arms, approximates the Plains type of shirt. It is more likely that this is in imitation of the Plains garment, which was patterned on the original simple cloth poncho, than the reverse.

The triangular flaps attached front and back to the Plains shirt at the neck hole have been tentatively explained by Wissler as possibly originating in a knife sheath hung in front of the throat.[8] It is difficult to account for two appendages in this manner. I think rather we have here confirmation of his general theory, for the Mexican ponchos in the collection of the American Museum are decorated with large lozenges woven at their centers, so arranged that when the cloth is folded, a triangular area extends downward from the neck hole in front and in back,

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[1] Franciscan Fathers, 469; Powell, Fig. 43; Stevenson, M. C., [illegible]
[2] Wissler, [illegible] and [illegible], II; Hough, [illegible]
[3] "A kind of tunic made of a buckskin, fringe hanging over the shoulders" (Whipple, [illegible]
[4] A deerskin folded [illegible], slit for the head, and tied at the sides [illegible]
[5] Handbook of American Indians, II, [illegible]
[6] Wissler, [illegible]
[7] James, [illegible], Fig. [illegible]; Franciscan Fathers, [illegible]
[8] Wissler, [illegible]

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Women's dresses present an even more interesting case of merging of patterns. East of our area the Plains women's dress is a long garment reaching to the shins, comprised of two skins forming a straight line at the shoulders and with the upper part turned down to form decorative flaps over the chest and shoulder blades. To the west women wear a short apron or skirt of cords, etc., pendent from the belt or made of skins. Among the Havasupai, Yavapai, Navaho, and possibly the Kaibab, these patterns coalesce but in different ways.

The Plains dress is used within this area by the Wind River and Lemhi Shoshoni, Paviotso, Jicarilla[1] and probably Mescalero[2] Apache, Navaho at times, Kaibab Paiute and possibly others near them, although Paiute women had scanty attire as a rule.[3]

On the other hand the Achomawi and Atsugewi, like typical Californians, wear a fringe or apron of deerskin or a deerskin skirt, the Southern Diegueño two aprons of pendent twigs, the Pericues a skirt or long girdle of fiber or deerskins, and other Lower Californians two aprons, usually of reeds strung together,[4] the Chemehuevi a bark petticoat, the Cocopa an apron of cords, the Yuma two aprons of willow (that in front reaching to the knee and the other made like a bustle and extending to the bottom of the calf), the Mohave a fore skirt of cords and a back skirt of strips of the inner bark of the cottonwood, the Apache-Yuma sometimes a kilt of strips of bark hung over the belt,[5] the Maricopa and Pima skirts of cotton cloth, buckskin, or willow bark.[6] The Mescalero and Western Apache garment, a skirt from waist to knees and "generously provided with fringes of buckskin," is presumably the same as these.[7]

The Havasupai woman's dress is clearly a modification of the two-apron type in the direction of the Plains dress. The front apron has been lengthened to hang from breast to shins and the upper part turned back to form a flap in the manner of the Plains yoke. There is a distinction however in that the neck part of the skin is at the top, not at the bottom as in the Plains dress. That it is hung by a band around the neck is unessential, for unless there is a corresponding back part to which it might be sewed it must be hung in some such fashion. No such change has occurred in the back apron; I do not fathom the reason for the horn-shaped additions. One curious feature is that an abbreviated

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[1] [illegible] Goddard, [illegible]
[2] [illegible]
[3] [illegible] *Handbook of American Indians*, II, [illegible]
[4] [illegible]
[5] [illegible] and Yuman, [illegible]
[6] [illegible], 113.
[7] Goddard, [illegible]

apron is always worn under the long garment. It seems probable that [7]
this is the original form of front apron perpetuated by the strong force 29]
of habit after the longer form was evolved. And it may be that the long garment was only infrequently worn, perhaps only in cold weather. An ornamental fringe worn in front as a belt looks like a further repetition of the apron idea.

Yavapai dress is identical. Two aprons are worn; a buckskin hung in front of the belt and another behind, and in winter

> a third one suspended from the neck by strings, and bound at the waist by a belt to protect the chest.

Even the decorations are alike; in both jinglers are put on the fringes, [30]
including bone tubes on the tabs of the neck straps.[1] [591]

Powell illustrates a Kaibab woman's dress which is of the Plains variety, a long skin affair with a fringed yoke. Yet there appears to be a short fringed apron over this.[2]

The older Navaho dress is a more direct imitation of Plains costume in cloth. Two blankets, which hang well below the knees, are sewed together over the shoulders, sewn from the bottom to the waist, and belted with a woven girdle.[3] This may be taken to be an adaptation of the Pueblo woman's cloth dress to the Plains pattern.

The Mescalero and Western Apache women are credited with an upper garment which may be an approximation to the Plains dress or perhaps to the man's shirt. It "had an opening for the head and two large square portions which fell in front and behind to the hips." This may also be true of the Achomawi, Atsugewi, and Southern Diegueño, who wear a poncho garment like that of the men; the first two a skin slit for the head and sewn under the arms, the last a rabbitskin blanket.[4] The Klamath have both the long dress and the skirt of bark strings.

In addition to these two general types, there is the dress of the Pueblo women. This is a garment formed of a square of cloth folded lengthwise and sewed into a tube. This hangs under the left arm with two corners fastened over the right shoulder.[5]

A woven belt similar to that worn by Pueblo women is used by the Havasupai (who derive them from the Hopi) and by the Navaho, Pima, and Mohave.

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[1] Corbusier, 332.

[2] Powell, Fig. 44.

[3] Stephen, (b), 1449; Letherman, 289; illustrated by Matthews, (a), Pl 34 and 36; Lipps, facing p. 48; James, (d), Fig. 189.

[4] Goddard, (a), 2nd ed., 181; Thom, (a), 209-210; Spier, (a), 249.

[5] Hough, (a), 247.

171 291 301 Strings of jinglers or rattlers are hung from the belts of White Mountain Apache and Havasupai women. They are also referred to in myths of the Shivwits Paiute, Wind River Shoshoni, and Comanche.[1]

102 171 291

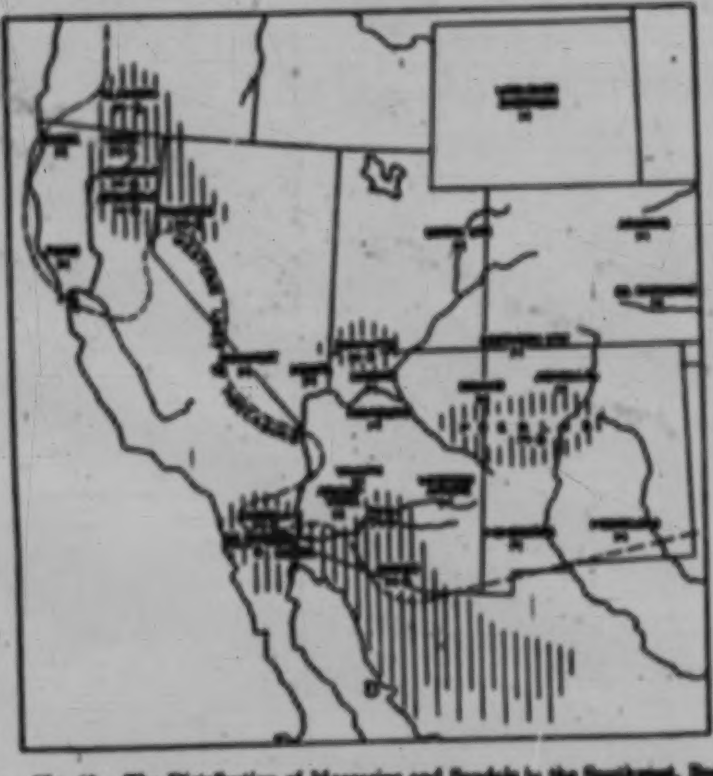

Fig. 42. The Distribution of Moccasins and Sandals in the Southwest, Basin, and Californian Areas. Shaded areas denote sandals.

171 291 [175] The moccasin is widely used in the Southwest but there is reason to believe that, like the Plains shirt and woman's dress, it is of recent introduction. At least the Pueblos, like the Pima and Papago, used sandals at the Spanish advent.

Moccasins are everywhere of the hard sole, two-piece variety. In the area at large they have been noted for the Wind River Shoshoni

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[1] Lowie, (b), 140; St. Clair and Lowie, 279.

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

(said to have formerly had the one-piece type, the hard-soled affair being introduced from the Arapaho), Uintah and Southern Ute, the Jicarilla (by implication), Mescalero, Mimbreños, the Pueblos, Navaho, Western Apache, Yavapai, Havasupai, Apache-Yuma, Pima, Papago, Cahuilla, Kaibab, Shivwits, and Moapa Paiute (used by the rich among the last), Panamint, Paviotso, Achomawi, Atsugewi,[7] Yurok, and Modoc. Yurok, Klamath, and Pomo have a one-piece moccasin, with a seam up the toe, which has a considerable distribution in California. It is not clear that moccasins are usually men's footgear alone. On the contrary, the implication is frequently that they were used by both sexes. But there is usually some difference in pattern. Pueblo women customarily go barefoot, in which the Havasupai women resemble them. Moccasins are for [292] them articles of gala dress or for journeys.[8] This is also true of the usual Papago and Pima usage, and indeed may be general in the Basin. 171 291

It is difficult to make comparisons with neither specimens nor specific descriptions at hand. Yet there seem to be two prevailing general types; low moccasins covering the ankles and high forms in which the upper is wrapped around the calf. The latter is generally confined to women. The low types are used by Havasupai, Zuñi, Hopi, Cochiti, Navaho, Apache-Yuma, and Cahuilla, and usually by men. Boot-like affairs are also ascribed to the Tonto (men), Mimbreños (men), and Pueblos. The wrapped-around type is used by Yavapai of both sexes and by women among Havasupai, Navaho, and the Pueblos.

Wissler's pattern Number[9]	*Havasupai*	*Navaho*	*Hopi*	*Zuñi*	*Cochiti*
17—First Havasupai type	Men; sometimes women		?	×	
—Second Havasupai type	Men; sometimes women				
14—(but with short upper)	Men	Men	×		×
14—Third Havasupai type	Women	Women			
15			×		
16			×		

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[7] Lowie, (l), 218; Pattie, 161; Bartlett, I, 327-328; Hough, (c), 651; Dumarest, 140; Russell, 118; [illegible], 242; Whipple, 96; Goddard, (a), 2nd ed., 137; Kroeber, (g), 61; Drucker [illegible]; Barrett, (a), 216.

[8] Hopi women wear the wrapped moccasin only at marriage ceremonies (Hough, (c), 79).

[9] Wissler, (a), 140-151. See also especially Stephen, (a), 131, 133; Mason, U. S. [illegible], Dumarest, Fig. 19.

171 These specific comparisons show that Havasupai and Navaho alike have
291 one pattern (No. 14) used by both sexes, which differs only in the length of the upper.

Moccasins in this area, like other articles of skin, are frequently
[531] colored brown or red. Those of the Zuñi and Navaho are brown; those of Havasupai and Pima are red. In this they differ from the Southern Plains, where, if I recall correctly, the prevalent color is yellow.

Sandals may have occurred more generally in earlier times. They are known to have been in use among the Pueblos, in southern California, and in the regions to the south[7] through western South America. In our own day fiber sandals of identical pattern are made by Southern Diegueño and Shivwits, fiber sandals of undescribed types are made by Cocopa, Cahuilla and doubtless by their neighbors, and low slippers of tule by Paviotso, Achomawi, Atsugewi, Klamath, and Modoc. Sandals of hide are made by the Pima, Papago, Cocopa, Southern Diegueño, and Chemehuevi. Those of the Yuma are not described.[8]

Long fringed skin leggings of Plains type are worn by men throughout much the same area as the Plains shirt. Something of the sort was used by Wind River and Lemhi Shoshoni, Uintah Ute, Jicarilla (by implication), Taos, Picuris, Pecos, Mescalero, Mimbreños (?), Western Apache, Yavapai, Havasupai (?), Kaibab, Paviotso, Achomawi, and Atsugewi. The Navaho men, and the Havasupai in imitation of them, have a short legging reaching only as high as the knee. This distribution does not extend as far to the southwest as that of moccasins. There is less information about women's leggings, which in the Plains cover only the lower leg. Leggings are noted for Wind River and Lemhi (?) Shoshoni women, and Mimbreños. They were not used by the Paviotso nor the Havasupai. The footless knitted stocking worn by Pueblo women, as at Zuñi, may be a local adaptation. It also seems possible that the putteelike women's moccasins of this area may be copies of the boot-like moccasins of the Southern Plains.

Overshoes worn over the moccasin when in snow are reported for the Walapai, Havasupai, Navaho, a[illegible] Zuñi.[9]

Rabbitskin blankets are perhaps universal in the western plateaus,
171 and used in California and throughout much of the northern part of the
281 continent. My notes are somewhat random, but will help to define the
286 distribution: Zuñi, Hopi, Navaho, Havasupai, Walapai, Mohave,[10]
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[7] E. g., [illegible] (Lumholtz, (a), Pl. I, II.)

[8] [illegible], (a), 344 ?; Kroeber, (f), 61; Mason, O. T., (a), 302; [illegible]; [illegible], (a), [illegible]; Chittenden, 154.

[9] [illegible], 47, [illegible]; [illegible], (a), [illegible]; Mason, O. T., (a), 408.

[10] The wearing of a rabbitskin blanket is illustrated by James, (d), Fig. 2, but according to Kroeber, these are obtained from the Paiute and Walapai, (d), 277.

Pima, Southern Diegueño, Luiseño, a people of the vicinity of Santa 171
Barbara, Salinan, Miwok, Southern and Northern Maidu, Shivwits 281
and Kaibab Paiute, Paviotso, Gosiute, Southern (?) Ute, and Northern 286
Shoshoni.[1] There is some variation in the details of manufacture which 291
provides comparative data. The Southern Diegueño and Havasupai
warp these upon rows of stakes; the Hopi do not. The Maidu resemble
the Paviotso in warping them over two poles.[2]

Descriptions of hair dress are lacking in precision and the situation 171
is somewhat complex. A style consisting of doubling up the long back 302
hair into a knot or queue at the back of the head is common to the Havasupai, Hopi, Navaho, Zuñi, and the Rio Grande Pueblos. Yet there is considerable difference even here: the Pueblos bang the hair over the forehead and cut that at the sides square; the Havasupai, while they too use the bang, wear the hair at the temples long. The Rio Grande Pueblos are said to arrange it behind in two clubs.[3]

Westward of this group the style calls for the bang on the forehead but long hair behind, even artificially lengthened. There appear to be two general styles of treating this back hair. It is simply wrapped without braiding by the Yavapai, Apache-Yuma,[4] Chemehuevi,[5] and Southern Diegueño.[6] On the lower Colorado and Gila the back hair hangs in long plaits or rolls: Mohave, Yuma, Maricopa, Pima, and probably Cocopa.[7] The Maricopa and Pima alternatively arrange it in a club at the back. The Mohave and Walapai, like the Seri, also part it in the middle and allow it to hang loose. The Walapai sometimes wear a braid on each side. Like the Havasupai, the Maricopa and Cocopa have pendent ear locks.

The position of the Western Apache is not clear. The Tonto wore the hair banged at the eyebrows and longer behind, but not to the shoulders,[8] or they cut it short all around. The San Carlos trimmed it, but wore no bang.[9]

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[1] Stevenson, M. C., [illegible]; Hough, [illegible]; [illegible]; Curtis, II, [illegible]; Russell, [illegible]; Spier, [illegible]; [illegible]; Lowie, [illegible].

[2] Among the Paviotso warping is the work of men, but sometimes of women. It would be interesting to know whether this is connected with Pueblo loom weaving, formerly a man's art, [illegible] of all clothing by men, as among the Havasupai. [462]

[3] [illegible]; Hough, [illegible]; Goddard, [illegible], 2nd ed., [illegible].

[4] "Long matted rolls of false hair behind" ([illegible]).

[5] Gathered "by a narrow band, from which it hangs loosely down the back" — or does this mean a headband encircling loose hair? (Whipple, Ewbank, and Turner, [illegible]).

[6] Spier, [illegible].

[7] [illegible]; Russell, [illegible]; [illegible]; Whipple, Ewbank, and Turner, [illegible]. [illegible] Curtis, II, [illegible].

[8] [illegible]

Plains hair dress is affected to the east. Mescalero, Taos, Picuris,
171 Southern Ute, and Northern Shoshoni men wear their hair in braids,
302 sometimes wrapping them with strips of fur. This was apparently the earlier Navaho style. It is, on the contrary, of recent introduction among the Northern Shoshoni, who in earlier times wore the hair loose and parted in the middle in the manner of the Wind River Shoshoni.[1]

The case is simpler with regard to women's hairdress. Apparently throughout the Basin and among most of the rancheria peoples of the Southwest women wore their hair loose. In Arizona it was usually cut straight across the forehead to form a low bang and in the back at the level of the shoulders (Havasupai, Walapai, Yavapai, San Carlos Apache, and some Mohave). Pima, Maricopa, and Yuma followed the same style, but the back hair may have been somewhat longer, hanging even to the middle of the back. The Southern Diegueño add only braids at the temples.[2] Aside from these, Plains influence has apparently affected the Lemhi and Wind River Shoshoni and the Southern Ute, who part the hair in the middle though they do not braid it. The older Pueblo style of two whorls of hair on the side of the head, described by Castañeda for the Zuñi, is perpetuated only by Hopi maidens. The older women in these pueblos wear two short braids. Elsewhere, the hair is banged in front and cut square just below the ears in back, but at Zuñi at least the hair is parted from ear to ear over the crown of the head and the rear portion tied in a queue. Navaho women, like the men, draw the hair straight back and club it behind. The Achomawi and Atsugewi wear it in two braids wrapped with minkskin in front of the shoulders. Illustrations of a Cocopa and some Mohave show it hanging loose about the shoulders from a central part.[3]

A feather hair ornament consisting of a bunch of down pendent
171 [301] from the top of the head by a short cord is worn by the Havasupai, Yavapai,[4] and by Zuñi dancers. It may be more generally distributed in the Southwest.

A brush of stiff fibers similar to the Havasupai hairbrush is made by
[412] the Pima and Huichol.[5]

Ear pendants worn by Yavapai of both sexes are quite similar to
[301] those of the Havasupai: strings of beads, five to six inches long, with mother-of-pearl or stone pendants.[6]

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[1] Teit, 166; Goddard, (c), 2nd ed., 80; Lowie, (f), 216, 217; (a), 180; Franciscan Fathers, 98. For a southern group see Dixon, (a), [illegible].

[2] Handbook of American Indians, I, [illegible]; Bartlett, II, [illegible].

[3] Handbook of American Indians, I, [illegible]; Stevenson, M. C., (b), 371.

[4] Corbusier, [illegible].

[5] Russell, (d), 116; Kissell, 143; Lumholtz, (c), II, [illegible].

[6] Corbusier, [illegible], [illegible].

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

The Yavapai resemble the Havasupai in their preference for red paint and in their use of the juice of burnt mescal.[1] 171 302

In this connection it is interesting to note that red paint is associated with war by some of these tribes and further that its use may have spread westward in recent times. The Wind River Shoshoni and Klamath use it in war.[2] I have recorded an incident (p. 261) in which a Paiute who has killed a Mormon is painted red. Powers noted that red paint, having a war-like significance, was introduced among the Yokuts from the Mono about 1860 and among the Karok with the Ghost dance of 1870. Miss A. H. Gayton also found that the ghost dance of 1870 brought red and black face paint into more general use among the Foothill Yokuts. At the same time the Moapa state that their red paint is derived from Shivwits territory, the Cahuilla that theirs is from Arizona, and the Mohave derive at least the best of theirs, like the Havasupai, from the Walapai. The Pima formerly obtained the paint from the Mohave, but in recent years from the Yuma. Finally a Southern Diegueño stated that it was brought from the Mohave country about 1875. On the other hand, the Salinan made red pigment of cinnabar, mined in that region.[3]

Tattooing is a practice which in the Southwest is almost entirely confined to the lower Colorado tribes and their neighbors. Mohave, Yuma, Southern Diegueño, Maricopa, Pima, and Yavapai women only are usually tattooed; the decoration is restricted to the chin, usually in the form of a few lines drawn downward from the corners of the mouth or under the lower lip.[4] In addition the lower eyelid of Pima men and women is tattooed and men have marks on the temples and forehead. Similarly, both sexes among the Havasupai, Walapai (?), and White Mountain Apache[5] are tattooed, but only in the simplest fashion with small marks. Tattooing sometimes occurs among the Pueblos and the Northern Shoshoni, but it is no more than this. On the other hand, the Navaho do not tattoo,[6] and it may be suspected that this was formerly true of the Pueblos and White Mountain Apache.[7] 171 304

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[1] Corbusier, 281.

[2] Lowie, (1), 207. But all the [illegible] painted red in token of amity, according to [illegible].

[3] Powers, (2), 384, 387. Powers assumed a war-like implication for red paint, but Miss Gayton tells me that this was an error of the local whites, while the ghost dance was entirely peaceful in Yokuts thought. Lowie, (2), 311; Kroeber, (a), 60; Russell, (a), 161; Spier, (a), 341; Mason, J. A., (a), 120.

[4] Kroeber, (a), 284; Whipple, 141; Whipple, Ewbank, and Turner, 33; Stratton, 74; [illegible]; Russell, (a), 162; [illegible]; Heintzelman, 43; Spier, (a), [illegible]; [illegible]; [illegible], 280 f.

[5] Dorsey, G. A., (b), 198.

[6] Lowie, (a), 162. For [illegible] see [illegible]; Franciscan Fathers, 74, [illegible].

[7] According to Hrdlička [illegible], only the older San Carlos are not tattooed, the younger ones having recently learned the custom from the Mohave.

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304

Tattooing also occurs elsewhere in California. I do not know how closely this resembles the style of the lower Colorado tribes. But the Maidu women, who alone as a rule bear the decoration, have three to seven vertical lines on the chin. There are regional differences among these people. Among Achomawi and Atsugewi, who tattoo but little, the women also have three lines on chin or cheek, the men a line of dots on the temple. This is somewhat like the Klamath custom. Yokuts and Costanoan also tattooed.[1]

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[1] [illegible]

SOCIAL RELATIONS

Family Groups

The basis of Havasupai life is the family as we know it. There are no clans nor gentes, nor are there any indications that they ever existed. There is nothing even resembling the Mohave custom of group names for patrilineally related women. The individual recognizes cohesion only to his immediate relatives; there are no other definite social or ceremonial groups. 592 [614] [551]

The family is a socio-economic group comprising parents, children, and unattached relatives of close degree. At the same time the family forms part of a larger group, that is, the husband's or wife's parents' families with whom they live. This grouping is based on, or at least correlated with land inheritance on the one hand, and with temporary matrilocal residence on the other. That is, we find groups of relatives working together and living near each other, but within which each married couple and their progeny are regarded as a distinct unit. 592 596 [423] [591]

Present-day observations on family life suffer from an anomalous condition, a shortage of marriageable women. Many families lack women competent to manage household affairs, so that men and children are forced to depend on some female relative. This has intensified the larger family groupings, so that a number of related families have centered, as it were, around the hearth of their woman cook. The following table shows the distribution of population. The ages are approximations adapted from the agency records; they are fairly accurate up to twenty-five years. I have not attempted to round off the five year periods. [178] 162

The total population is 177, with an excess of 19 males. As near as I can place the excess it lies between the ages of twenty and forty-five where there are twice as many men as women. Below and above these limits the numbers are equal. I gather that this deficiency in women developed during the last two decades. In fact, Coues found approximately normal conditions in 1881, 60 men and 53 women.[1] On its face the phenomenon is recent; otherwise, whatever the cause lies in childbirth suggests itself—there would be a deficiency of older women as well.[2] [175]

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[1] Coues, [illegible].

[2] Old women are more numerous than old men, but the numbers are too small to determine whether there is really a shortage of older women. Hrdlička found on the basis of the Twelfth Census (1900) that there was an excess of females over males after the fifty-fifth year, among all Indians, and after the seventy-fifth year, among native whites of native parents [illegible]. The Havasupai sex ratio is [illegible] males to 100 females; in 1900 it was [illegible], in 1890, [illegible]. The Thirteenth Census (1910) gives abnormally high sex ratio in favor of the males for all the Colorado River tribes

COMPOSITION OF POPULATION, NOVEMBER 1, 1919

162

Age	*Males*	*Females*	*Age*	*Males*	*Females*
1	5	5	35	1	2
2	4	1	36	..	1
3	6	2	38	1	..
4	..	1	39	3	2
5	3	3	41	..	1
6	..	1	43	1	1
7	6	7	44	6	1
8	2	2	46	1	..
9	3	2	47	1	..
10	2	2			
11	..	3	48	1	..
12	1	1	49	1	4
13	1	2	50	..	1
14	..	3	53	..	1
15	3	1	54	2	1
16	3	1	55	1	2
17	2	..	58	2	1
18	...	2	64	1	..
20	1	1	67	1	..
21	3	..	69	3	3
22	1	1	70	..	1
23	1	1	71	2	..
24	..	1	74	1	..
25	3	..	75	..	1
26	..	1	79	1	3
27	4	2	83	1	1
28	1	..	88	..	1
29	4	..	90	..	1
30	2	..	92	1	..
32	1	1	94	..	1
34	3	3	Totals	98	79

[592] [621] There are forty-two camps, or family units, in the village, which would give an average of 4.2 persons to the family, or adding nineteen women to allow for the shortage, 4.7 persons. It is difficult to estimate the number of families exactly,[1] because their composition is constantly changing, particularly by way of merging into larger family groups. At any rate these figures agree fairly well with the size of our own family, and with those of the Pueblos with an average of barely five, excepting Zuñi, where there are 7.5 per family.[2]

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[1] In 1776 Garcés estimated that the number did not exceed thirty-four (Coues, 343).

[2] Kroeber, (l), 123-124.

The family with which I lived in 1918 is typical. It consisted of Tokacridja, aged seventy-five, her daughter Susie, fifty-five, both widows of long standing, and her two sons, Mark and Henry. Mark is a widower of thirty-four; Henry is thirty, his wife Nina is twenty-three, and his two sons are seven and three. They live in two houses standing side by side: Tokacridja, Susie, and Mark in one, Henry's family in the other. Both the mother and daughter cook in their own half open house, and eat there with the two men and the boys. Nina sometimes joins them, but light hurting her failing eyes, she usually remains within her own brush house. To make the picture complete, there must be added the continual stream of visitors, mostly unattached men, relatives and otherwise, who share the ever ready meal. All five adults labor in their fields, which are their joint property, although more emphatically Mark's and Henry's. Nina also planted in a field allotted her by her father's elder brother for the sustenance of her two boys. The men give more attention to irrigation and their horses, and now that alfalfa is grown, to those fields too; the women have more concern in caring for the harvest.

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[123]

[574]

Groups of closely related families living and working together form still larger informal units. A typical case is the group of which Manakadja is the head. With him live his wife and two adult unmarried sons. The adjacent house belongs to his oldest son, Jasper, his wife and two daughters, the next house to his youngest daughter, Esther, her husband and infant. A short distance opposite, sufficiently far to be something of a separate camp, is the house of his eldest daughter Teček'idje, her husband and six children. All the women cook together in the open space about which the houses are grouped, although Teček'idje's family leads rather a separate existence and Jasper's also does to some extent. All of them work their fields in common, or rather Manakadja's, whose inherited holdings are extensive. Esther's husband has some interest in his father's fields, and Teček'idje's husband may own some land.

Watahomidja's family group comprises his wife, her aged Walapai stepmother, his eldest son and wife, his second son with his wife and two infants, and his third unmarried son. All these occupy one house and eat together. In 1918 his daughter, Callie, her husband and three children lived in an adjacent house, with the husband's aged mother living in a shelter alongside. This family led a somewhat independent existence, and in 1919 broke with them to live some distance off. This year Watahomidja was joined by his daughter's orphaned boy.

Rock Jones shares a house with his wife and his eldest son, a widower 592 with two girls. A nearby structure houses his second son with a wife and three daughters, together with Watahomidja's youngest son, Claude, who in 1919 became the husband of the oldest daughter. In 1918 Rock Jones's youngest son lived close by with his wife, Kitty, and three children, but the following year this family spent most of their time with the wife's family in order to support them when her father Bert went blind.

Bert's family consists of his wife and her illegitimate son, his eldest son and his new wife, and his three young daughters. These together form an economic group. In 1919 it also included Kitty's family. Not far away lives Bert's younger brother, Richard. With him are a wife and three children, and his mother occupies an adjacent hut.

Captain Burro and his wife were rejoined by their son, his two half-grown sons and their stepmother, Lilly, in 1919. All these share a common existence. In 1919 Lilly's father, having lost a son, came to live nearby with his wife and two young daughters, but they maintain an entirely distinct establishment.

Sinyella's group centers around his stepdaughter, Djerdwaimo. With him in his own house are his adult sons, Lanoman, a widower, Melvin, and Louis (see the genealogical chart, p. 392). His second son, Dean, lives in a nearby house with four of his children. A nearer house shelters his stepdaughter, Djordwaimo, her husband, Teikapaniga, her daughter Helen, and Dean's infant son whom she is raising. For a brief period Helen lived elsewhere with her husband until he died, then she returned to her father's home. In 1919 Jess brought his family, consisting of wife and two children to live alongside his father, Teikapaniga. The hearth around which the whole group centers is Djordwaimo's; she is assisted in her culinary preparations by her daughter-in-law, while Sinyella and his sons often prepare their own meals. On occasion his granddaughter Katie will come to cook for him, in which event she brings her husband and children. When all the families eat from the common pot they contribute their share of its contents. Sinyella, his sons, and Dean's children form an economic unit in which his younger brother's son West, whose family lives elsewhere, is included. All work together in their undivided fields, which Sinyella and his deceased younger brother inherited from their father. The harvest is stored in their common storage houses. Teikapaniga plants his fields with the aid of his wife, daughter, son, and daughter-in-law: his son Jess also owns a plot of land. These together also form an economic unit.

The structure of these larger family groups is transparent; a group 592
of sons reside in houses adjacent to their parents' house, together with the newly established families of the daughters of the house. They share a common livelihood: father and sons work their undivided fields with their wives' assistance; the new son-in-law works with his wife's father until he breaks off to return to his boyhood home. A common residence and livelihood makes for a common hearth, constant association, and the feeling that such relatives form one big family. Undoubtedly the shortage of active women has intensified the situation, but I doubt that it has created a new condition.[1]

Unattached relatives, widowers and widows (*[illegible]*, also an infre- 592
quent word for spoiled, awry), are found in the households of their near- 736
est blood relatives. Orphans (*[illegible]*, boy; *[illegible]*, girl; terms not applied to half orphans) are raised by the relatives of either parent, preferably by a parent's sibling, without prejudice to the interests in the child of the relatives on the other side of the house. Thus, Edgar has lived for several years with Watahomidja, his maternal grandfather, at the same time receiving the gifts of his father's mother and brother.

There is also a tendency toward the formation of still larger groups. 621
This first came to my notice at the dance in 1918, where it was apparent that those from the south end of the village were seated in one group, those from the north end in a second, and families from the central portion formed a third. The division was not absolute, but it was sufficiently marked to be noticeable. The reason for the grouping will appear in the sequel (227, 231), whence it seems that these divisions are the result of relationship and land inheritance, marriage among neighbors, and neighborly interest and cohesion.

Kinship

The individual is oriented among his tribesmen by his relationships. 602
His family is for him a group of kinsmen; beyond them are more distant relatives and in the outer circle the unrelated members of the tribe.

To the question who are kinsmen the answer comes patly enough, 602
blood relatives, but blood relatives are always a group defined by arbitrary 621
limits. This must be particularly true of the Havasupai. Presumably the group never rose in numbers much over 250. I gather that during the last century and a half there were comparatively few intermarriages [648]
with foreign tribes, even with the Walapai. Under these conditions everyone must bear innumerable and comparatively close relationships

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[1] I have shown elsewhere (*A Suggested Origin for Gentile Organization*) how a sib system might easily arise from the Havasupai situation.

602 to all his tribesmen. Yet only a fraction are recognized as blood relatives, 621 although a community of blood is felt for all. Mark Hanna enumerated 74 persons related to him by blood and 17 relatives by marriage in a population of 177. Jess Chickapanyega, his nephew, recognized 93 connections by blood and 6 by marriage. Other relationships, of which they were only vaguely aware, came to light while working out the genealogies with them. Terms which express relationship subsume under a single caption a variety of relatives whose actual blood connections differ. I have tried in the following paragraphs to define the limits within which kinsmen are recognized and the relationships in which they are conceived to stand.

Relationship terms were obtained from six men and women who 601 should have been competent. Yet all of them fell short of certainty with 602 relationships outside of the immediate family. This was true not only in working over hypothetical cases but with living relatives as well. All hesitated and gave conflicting answers for the cross-cousin's children, for greatgrandchildren, and for brother's and sister's grandchildren. This experience is a familiar one and undoubtedly this accounts for the gaps under these headings in Morgan's schedules. Men were less able to give the more remote relationships used by women than were the women themselves. Both Mark and Jess displayed some hesitation in giving the terms by which they addressed those relatives with whom they infrequently came in contact, although they knew readily enough to whom they were related. It was still more difficult for them to give the terms by which these people responded. Both had frequently to confer with their relatives. Apparently the chief reason for this uncertainty 551 lies in the free use of names both in direct address and by way of refer- 601 ence. Kinship terms are comparatively little used and where the relative stands at such remote degree that the blood connection is not obvious there is even a more effective reason for neither learning nor remembering the appropriate designation. This, it will be recognized, is unusual among American tribes, where kinship terms are used more commonly than names.

601 nápoigá	father's father
mótigá	father's mother
nágwadigá	mother's father
nágoi igá	mother's mother
djitai igá, djitá	father
djidji igá, djidjí'	mother
nowigá	father's older brother
nidjaigá	father's younger brother, a woman's male cross-cousin and his son,

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nádí'igá	mother's older sister
námígá, ïnámígá	mother's younger sister
nágwí'igá	mother's brother
nábígá	father's sister
nyé'igá	older brother or sister, father's brother's or mother's sister's child, older than self
gí'nigá	younger brother or sister, the corresponding parallel-cousin, younger than self
djíká vigá	a man's male cross-cousin, and his female cross-cousin's son
pafigá	a woman's female cross-cousin, and her male cross-cousin's daughter
hamé', homé gá	"boy," a man's son
ávtsíjégá, ävtsíjévtsíj	a man's daughter
n$_y$a''áñka'á, ñka'igá	"my offspring," (lit. issue), a woman's child (n$_y$a'áñduá, plural)
sá bíjigá	a man's older brother's or male parallel-cousin's son
nó''igá, nótígá	a man's older brother's or male parallel-cousin's daughter, his female cross-cousin or her daughter (nó''igá in indirect reference, nótí in direct address)
wí'igá	a man's younger brother's or male parallel-cousin's child
wénigá	a man's sister's or female parallel-cousin's child (possibly his older brother's or male parallel-cousin's daughter's child)
bígá	a woman's brother's child, probably her male parallel-cousin's child also. (This may be the same as nábí'igá, father's sister, although this was denied.)
nofígá	a woman's older sister's child, probably her female parallel-cousin's child as well
wí'sígá	a woman's younger sister's child, possibly her female cross-cousin's child, but the most competent informant did not know what to call such a child
sáwigá	son's child, a man's (and possibly a woman's) son's son's child, (possibly a man's older brother's or male parallel-cousin's son's child), a man's younger brother's or male parallel-cousin's grandchild, a woman's brother's son's child, possibly her male parallel-cousin's son's child, her older sister's (and possibly her female parallel-cousin's) son's child, her younger sister's (and possibly her female parallel-cousin's) grandchild
kofígá	daughter's child, a man's (and possibly a woman's) daughter's grandchild, a man's (and possibly a woman's) son's daughter's child, a woman's brother's (and possibly her male parallel-cousin's) daughter's child, her older sister's (and possibly her female parallel-cousin's) daughter's child. (Compare nágui'igá, mother's mother.)
gátdjigá	a man's sister's (and probably his female parallel-cousin's) grandchild, his male cross-cousin's child
n$_y$áhamí'i, nyahamégá	my husband (my boy?)
n$_y$á'aluwá, luwégá	my wife
ginyéga	daughter's husband, wife's parent

601	winyégà	son's wife, wife of all relatives except as noted elsewhere
	pahamí'igà	husband of all relatives except as noted, wife's brother or her grandparents[1]

I am doubtful regarding the application of some terms. Sinyella did not know what a woman's female cross-cousin's children should be called, nor the terms for a man's older brother's or male parallel-cousin's children. He said the latter would just be recognised as relatives. Djerdwaimo gave *noiìgà* for a woman's male parallel-cousin's child, *bàigà* for the son, and *paiìga* for the daughter of her female parallel-cousin; but I think she is mistaken. Probably she did not understand the question. She did not know what her daughter Helen would call Pete's grandchildren if he had any, i.e., Helen's father's younger half-brother's grandchildren (see the genealogical chart).

There are no terms for a husband's brother or sister, nor their spouses, nor for a wife's sister or her husband, nor a wife's brother's wife, nor for a husband's parents, nor a child's parents-in-law. There are no terms for step-parents; they are not called by parent terms, because "we are afraid, for the father and mother are dead." Half-brothers and sisters are called brothers and sisters.

[551] References to dead relatives are by the relationships they bear to the living, as Manakadja's father. The form *panyá'ataivìdj*, my father now dead, was recorded.

The reciprocal of *koìigà* is said to be *nagoìigà*, but other terms are given for the reciprocal relationships. The word *gàìdjìgà* may mean relative in general, as *ìnyánayan,ìkàdjàdj*, Sun, my relative, occurring in a prayer.[2] In a myth, "Wolf, my father" was recorded as *hatàgwìl n,anàḳóta*, said to be an obsolete term; son-in-law, *ginyéga*, was also recorded as *ginyíyà*.

601 124 [115] These meanings were checked at the hand of genealogical data given by Mark Hanna, his sister Susie, his nephew Jess Cheekapanyega, and Jess's mother, Djerdwaimo. A record was made of the terms used by Mark and Jess for every living relative, and the reciprocal terms, on the basis of the agency census, before any genealogical charts were drawn, so that the names did not occur in logical order. The accompanying chart

601 gives Jess's relatives in full. For convenience I have separated his

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[1] The following possessive forms were recorded in myths:—

nyän,ágwadòdj	my mother's father	nyan,ádjed kìdj	my father's younger brother
n,amódàdj	my mother's mother	nyalteikàvà	my male cross-cousin (man speaking)
nyäaluiḳwiwàdj n,in,àwiwà	my mother's brother	nyaedidjv kìdj	my elder brother's son (man speaking)
		n,anàḳóta	my father

[2] However the more general word would be n,ataqádjìid, my relative ([illegible] [illegible] [illegible], he marries a relative; literally, relative, he knows it, to take a wife).

father's from his mother's relatives. The figure after each name gives the approximate age. Where more than one figure follows it means that several individuals stand in exactly the same relation to Jess; in order to avoid duplication I have indicated only their ages. Thus Jess has two daughters, aged six and one respectively, so the chart reads "Rosie 6, 1." A name set in italics means the person is dead: a line in the name place means that it was not obtained. Several individuals are related to Jess in more than one way: I have repeated their names in the appropriate places. A few names of unrelated persons are added in order to fill out the families and define the limits of kinship.[1] The first word given under the name is the term Jess uses to designate that person, the second the term used reciprocally. Thus Jess calls his wife *luwigá* and she calls him *nyahamigá*. Where there is no term given it means that that man is not related; a line in the second place means that there is no reciprocal term used.

Most of the usages conform to those given above. The most interesting point is the extension of terms for lineal relatives to collateral lines. Thus Jess's father's father's half-brother's son is equated with his father's brothers, his mother's mother's sister's children are equated with his mother's brothers and sisters, and the terms used for their descendants logically follow. The significant fact is that all these initial relations in the parents' generation are uncles or aunts, with the appropriate term according as they are older or younger than the parents. The relative ages of those in the grandparental generations do not figure at all. This is consonant with the classification of parallel-cousins as older and younger siblings as their ages compare with one's own, no matter whether their parents were older or younger than one's own father and mother. These observed extensions follow:—

mútigá	Tokaoridja, father's mother's co-wife
nidjaígá	Barney, father's father's half-brother's son: used by Flynn and Callie for father's mother's half-sister's son
námiígá	Tafasiedje, mother's mother's sister's daughter
nágwéigá	Spoonhead, mother's mother's sister's son
niyéigá	Lillie and Carl, mother's mother's sister's daughter's children, and the reciprocal extension is exactly the same
djikávigá nó°tigá	Grace and her brother, mother's mother's sister's son's daughter's children. Note however that their older half-sister Katie is more closely related and therefore called gí'nigá. Willie and his sister are mother's mother's sister's son's children
sáwigá	Used by Tokaoridja for her co-wife's son's son

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[1] A word of caution against using this chart to determine the number of children born to a couple: it represents only those surviving at the time it was drawn up and those dead persons who have surviving descendants.

There are a few exceptions to the usages given in the list of terms. Teskam'ʼlauwa, Jess' father's father's half-sister is called *náθi''igá*, that is mother's sister, whereas it would be more reasonable to expect *nábi'igá*, father's sister. I presume that Jess thinks of her merely as an old woman relative and accordingly classes her with his mother's real sisters. Similarly we might expect *nidjal'igá*, father's younger brother, for her sister's son Frank, but *djīkávigá*, as he is called, would naturally follow from the relationship assumed toward her. All this is strange because Barney, her brother's son, is evidently correctly termed.

Loren, mother's half-sister's son's son's son, is called *wánīgá*, so are Edgar and Caleb who are mother's half-sister's son's daughters' sons. Harriet and Fay are called *nóʃigá;* they are mother's half-sister's sons' daughters' daughters. Apparently this conflicts with the doubtful terminology given above, whereby Loren and his sister, if he had one, would be called *aúwigá* and Edgar, Caleb, Harriet, and Fay would be *wánīgá*. There is indirect evidence for the correctness of the terms in the genealogical table, however: Mark calls Jess's daughter Rosie, i.e., his older half-brother's son's daughter, *nóʼligá*. Presumably the correct term for a man's older brother's or male parallel-cousin's grandson is *wánīgá* and for the granddaughter *nóʼligá*. The reciprocal terminology is not very easy to fathom. It is conceivable that Edgar, Caleb, Harriet, and Fay should call their mothers' fathers' mother's half-sister's son, *nágwéigá*, although he is in their grandparents' generation. But it is not reasonable that Loren should use the same term, usually applied to mother's brother, because he is related to Jess through his father, Joseph. Either Jess has given this term in analogy with the other children, or what is more probable, he has thought that the reciprocal of *wánīgá*, usually a man's sister's son, is always *nágwéigá*. Of course, if he had used the same reasoning in the case of the other children the reciprocal terms used by the girls would have been *nidjal'igá* or *djīkávigá*. Jess had great difficulty in giving all these terms, for they are evidently not used, Sinyella was little help, and his parents took days to thrash the points out.

Jess calls Roy *gátdjigá*, properly enough, but Roy uses the reciprocal *nyigátdjigá* instead of *nidjal'igá*, father's younger brother, as we might expect for a father's father's half-sister's son by analogy with Flynn's case.

Some other illuminating extensions in the use of terms were obtained while tracing the inheritance of chieftainships. Sinyella would have called Pa'hlégaʼmíʼl by the term he used for his paternal grandfather, *nápoi'igá*, and expected the regular term for son's child, *aúwigá* in reply (see

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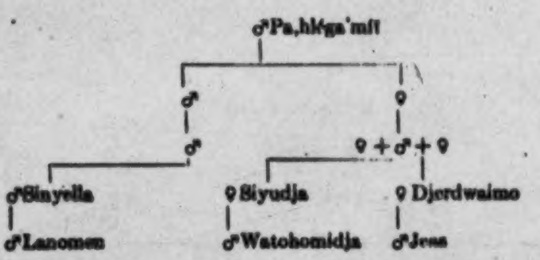
genealogy below). Watahomidja would have called the same man *ndgwaáígá*, expecting *koi ígá* reciprocally, as if he had been his maternal grandfather. That is, relatives beyond the grandparental generation are reduced to the appropriate grandparent status according as the connection is through the father or through the mother. Sinyella calls Watahomidja *wánígá* as though the latter was his father's brother's daughter's child. Lanomen and Watahomidja call each other *djikdvígá* as though Siyudja and Sinyella were father's sister and mother's brother respectively. This conforms exactly with the practice in Jess's case: relatives in collateral lines are equated in the parents' generation.



Terms were also obtained from Mark and his sister Susie, Jess's uncle and aunt, for a fair range of their relatives. There are only three unusual usages. Mark calls Lillie, his mother's brother's son's daughter, *nó'tígá*, she replying *nidjalígá*. Susie calls Lillie and her brother Carl, *bígá*; and they reciprocate with *nábígá*. According to other informants Mark should have said *gáidjígá*, and Susie *nidjalígá* for Carl and *palígá* for Lillie. As it is, they both refer to them as if they were their brother's children, yet neither of them refer to Prince, their father, as brother, but by the proper cross-cousin terms. Mark might also be thinking of Lillie as a cross-cousin. It is also possible that Lillie and Carl may be related to them through their mother in some way unknown to me, but it would have to be through the mother's parents. Mark also calls Gathawinga, his mother's brother's daughter's daughter, *wánígá* (*ndgwéígá* reciprocally) as if she was his sister's daughter. He should say *nó'tígá*. Susie is Nina's stepmother as well as husband's sister, but, according to the regular usage, she calls her *wínyígá*, with no reciprocal term; that is, they ignore the pseudo-lineal relation.

Jess uses terms for very few relatives by marriage, in fact the few instances recorded were given by way of illustration rather than a statement of use. Where men such as Bela and Claude are also related to him

601 by blood, he prefers to use the blood designation. This applies of course to their wives as well. In all other cases he prefers to use names.

Mark's attitude is different: he noted the reciprocal use of the term *pahamī'ligá* for every male relative by marriage. While Panamida's wife was still alive Mark called him *pahamī'ligá*: now he does not use the word. It is interesting to note that while *pahamī'ligá* is reciprocal, *winyaga*, a woman relative by marriage, is not, nor is there any correlative expression. Nevertheless the mutual nature of the bond of affinity is recognized. For example, Mark and his brother's wife, Nina, live in the same camp, and both are fully aware that the ties which connect them operate on both alike, yet Mark may address Nina as *winyígá* whereas she must reply by name. Mark has twelve relatives he calls *winyígá*, yet not one can use a term expressing her relationship to him.

The genealogical data clearly indicate the limits including kinsmen. 601 Jess does not recognize as blood relatives any whose connections lie back 602 of his grandparents' generation. The same seems to be true of Mark, but I am not so certain of this genealogy. Jess's case is particularly instructive because it eventuated while tracing the inheritance of chieftainship (see the chart, p. 242) that he was related to Sinyella through his great-grandmother. But he was not even aware of any relationship, although Sinyella is a member of his family group and assumes a grandfatherly attitude toward him. He might readily have assumed a number of close relationships, for Sinyella calls Jess's mother *gī'nigá* and is reciprocally addressed as *nyú igá*. At the same time Sinyella is Djerdwaimo's stepfather so that he might have been called father by her and grandfather by Jess. For although step-relatives are not classed as actual relatives, Djerdwaimo often does call her stepbrothers, Melvin and Louis, *gínigá* as well as her half-brothers Lanomen and Dean. Her extension is rather unusual because recognition of kinship generally stops where blood connection ceases. Jess is also related to Big Jim, but neither he nor his father knows what the connection is. The bond must lie back of his grandparents' generation. To cite another instance, Spoonhead and his brothers are half-brothers by their father to Manakadja and Captain Jim, that is, definitely brothers from their point of view, but while Jess recognizes a connection with Spoonhead through the latter's mother, Manakadja is most emphatically not a relative. Similarly James is not a relative, for he is the illegitimate son of Mary, born after she married Bert. Furthermore, Jess's shrewd guess as to the identity of the boy's father did not include any of his own relatives. Nevertheless it must be noted that Bert treats the boy as if he were his son.

It is also clear that within the kin group collateral lines are merged 601
with the direct line of descent, relatives being equated in the parents' 602
generation. Relatives more than three generations distant are designated by grandparent and grandchild terms. Finally there is little recognition of relatives by marriage.

I have failed after persistent inquiries to find any trace of special social relations or obligations between those in any two categories, other than the universal relation between parents and children and those between camp mates.[1]

Foreign Indians are sometimes adopted informally as *súldjīga*, a 597
man's older brother's son, or *djīkávīga*, a man's male cross-cousin, in
preference to other relationships. Children of relatives are adopted, but [648]
do not assume new relationships. There are no friendship adoptions as at Zuñi, and no ceremonies of adoption.

MARRIAGE

Marriage was normally monogamous, although there were some 588
polygamous unions. One may not marry a blood relative. Should a [595]
couple innocently marry and someone later discover that they are related
by blood, they would feel ashamed. They would not separate, but [588]
people would always condemn their union. There is no notion that [684]
monsters spring from such marriages. So much for theory. Crook had lived with Callie for about a month when the old people said that they were related, so they separated. Both have since re-married. From the chart showing the inheritance of chieftainship (p. 242) it appears that Crook's father and Callie's paternal grandmother are cross-cousins. They may be more closely connected through their mothers. My informants were aware that blood relationships are forgotten after a very few generations, and that most, if not all intratribal marriages ignored some remote and unknown degree of relationship. By checking over the agency census with Jess I find that the females, including children, he could not marry were invariably blood relatives, numbering forty-two. Mark said he could not marry thirty-eight women, four of whom were not related to him in any way and five where the recognized bond was one of affinity. For example, he said he could not marry Nina, his younger brother's wife. It turned out, however, that he would not marry one of these women, another was "too fat," and so on. I found no other hint of

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[1] Specifically, there is no special relation with the maternal grandfather, as implied, e.g., in some Plateau-Basin tales. Incidentally it may be noted that in cases of matrilocal residence the maternal grandfather of the children born to a couple is the head of the family group. [592]

582 exogamic groups, so I presume that he was stating marital preferences, unless in some cases he is vaguely aware of blood connection.

A man went secretly at night to his sweetheart at her father's house.
583 If she was willing he stayed with her and later presented a buckskin,
[584] blanket, or horse to her parents. If she or her parents objected to the match, they drove the man off.. If the girl was willing, though her parents were not, they might elope. In such a case the parents would finally give their sanction to the accomplished fact and the man might then make them a small present. People in general would approve of runaway matches, but the girl's relatives might cause trouble. Advances
[584] should always be made first by the man, for the woman who does so falls into disrepute.

Presents were usually given to the wife's parents, depending on the worldly circumstances of all concerned. It seems to have made little difference in the relations of parents and son-in-law when such presents were not forthcoming. In recent years the present ranged in value from thirty to fifty dollars. Sometimes one good horse was presented; at current rates (1919) this would be worth about sixty dollars. The husband's relatives might also give clothes and ornaments to his wife.

The husband lived with his wife at her parent's camp until he was
591 ready to build his own home, or more usually, until his wife had borne one or two children. During this period the man worked for her parents, or rather with them, in the fields, fetched wood and water, etc. When they finally established their new home it might be near either his or her parents' camp.

Sinyella gave the following account:—

> 584 When a young man wants to marry a good-looking girl, with whom he had talked, he went at night and waited close to her house until her relatives were sleeping; then he crept into her bed and shook her awake. If the girl did not want him she yelled, but the boy would not want her parents to see him, so he would go right out and return home. Someone would tell her relatives who the boy was. Then the parents would say to the girl. "The one who wants to marry you is a good boy: we want you to take him. He works well, he is not lazy; he is a good traveler and hunter;
> [581] he has plenty of horses and other property. He is pretty good. If he comes again, do not yell: we like the boy." When the boy comes again she receives him. But if the parents do not like him, they say, "We do not like you: you can not marry our daughter." If the girl receives him, they sleep together for four or five nights. Then
> 583 the boy thinks of what he will give the parents. Long ago the boys gave horses, buck-
> 591 skin, meat, corn, piñon nuts, mescal, or other things to eat to the parents. The boy then stayed at her parents' house for a year or so, until the couple wanted to establish their own house. He would gather wood, plant, and hunt for her parents; work for them. He would stay with his wife's parents until they had one or two children. If
> 586 the girl or boy is lazy or fights or does wrong, they returned the presents and terminated the affair.

When I married the first time I gave the girl's parents one big blanket and a 583 black woven Hopi shirt trimmed with red, and a lot of dried deer or antelope meat: just these three things. I was then about twenty-five years old, a pretty big man. In 582 those days the old people said they did not want young boys to marry; they said they were old enough when they were grown men, young men. The girls should be the same, they said, perhaps seventeen years old. Now the boys and girls marry too young.[1]

In 1919 Gathawinga, aged fourteen, married twenty-two year old Wallin. When her father Panamida returned to the canyon several days later, he broke off the match on the grounds that Gathawinga was too young. He had no objections to Wallin.

It does not appear that the presents are a purchase price; they seem 583 rather to be in the nature of a compensatory present given partly in 587 return for the girl, that is, like any other exchange of presents, and partly as a gift to establish friendly relations. The only difficulty with this view is that it is said that if a woman re-married within a short time of her husband's death, his relatives might demand presents from her new spouse. This would not happen, however, if a considerable period had elapsed, one, two, or more years.

The bearing of illegitimate children seems not to have been a barrier 848 to marriage. Mary was delivered of James by an unknown father after she married Bert. Bert treats James precisely as he does his own sons.

Marriage with a woman who had been previously married was "much 587 easier." The man stayed only a week or two in her camp. Generally no presents were given, but if the man was rich, he gave something. The woman's relatives exercised some control in such cases also. A stepfather treated his stepchildren precisely as he would his own.

A man may marry an older or younger brother's widow, just as any other man may. For example, Smiley's second wife, Tĕskám^{a}ladwá, was the widow of his elder brother, Kŭfó. The levirate (*sa'yógə*) is not compulsory; it makes no difference whether or not there are children. The sororate was not practised, but it was preferable to marry a second sister, if it was compatible with her inclinations, when the first died. The husband would then give presents to her parents. In other words, it appears that the girl's family was not under obligations to furnish him a wife; this renders it even more unlikely that the marriage presents are payments.

A man could have two or three wives (*tahawígīgə*, having two wives, 595 *huwígə*, two; *tahamúgīgə*, having three wives, *hamúgə*, three.) One

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[1] This is a popular fallacy, but it is countered by the assertion that illegitimate births were extremely rare.

595 informant stated that the wives might either be sisters or unrelated:
one arrangement was as harmonious as another. But another informant
denied that sisters could be plural wives. Seven households in which
there were two wives were remembered, four of them belonging to men
now living, and I surmise that this approaches the number existing during
any one man's lifetime. These informants had heard of three wives, but
had never seen such a family.

A man who wants to take a second wife consults his first wife and
may abide by her decision. Of course, he does not go to live with the
second wife's family, but takes her directly to his establishment. The
presents given in this case would amount to about the same value as
those given his first wife's parents. Both wives or all three live in a single
house with their husband, even when they have large families. They
might, however, have separate houses in one camp. There seems to be no
difference in the treatment of the two wives. When their husband dies
[768] they separate, returning to their relatives with their children. Co-wives
428 probably share equally in the inheritance, for the disposition of property
seems to be influenced chiefly by the number of their children. The
impression is that the heritage is really that of the children. This is
confirmed by the general practice, for if a widow re-marries soon, the
[587] inheritance reverts to her children; it does in any event when they are
old enough to enjoy it.

In one plural marriage for which there is definite information
595 Manakadja had already married Gwegweθgwaia at the time the Paiute
took up residence in the Walapai country. He sent her away and took a
Paiute wife at Pine Spring. Later he brought his bride to the canyon
and took Gwegweθgwaia back, living with both of them until the Paiute
woman died.

There is said to be no divorce, but I recorded other instances of
586 arbitrary separation. Wa^{n}kwanima sent his first wife away, after she
had borne a son, Tcikapaniga, because she was "no good." He then
took two wives by whom he had a number of children, Pete, Mark, etc.
(see the genealogy, p. 392.) When he died the widows returned to their
relatives with their little children. These children regard each other
alike as siblings, the divorce of Tcikapaniga's mother makes no difference
to them. In fact, Pete lived with his eldest brother before he was
married. Other cases are Pagadjahuda and Supai Jack's father who
separated because they were angry, and Crook's Yavapai and Roger's
Walapai wives who ran off home.

586 One informant stated that a wife was not divorced even in case of
684 adultery; the husband would thrash her partner in shame with his fists,

but he would not attempt to kill him. He would kill the man's horses. 586
Anybody might interfere to put a stop to this. Another informant said [684]
that the guilty woman would be beaten and divorced: her husband
would keep their children.

Divorce for barrenness had never been heard of. If a wife proved
barren (*pik'igiθaiadj*, barren women) the husband would take a [595]
second wife in order to have children. A quarrelsome wife, one who pulls
her husband's hair, bites, scratches or pinches him, destroys his property,
etc., would be turned out.

If a man maltreated his wife, beat and stunned her, her relatives 593
would interfere, admonishing him to treat her well. She might retaliate 684
by throwing away the food she cooked, or in an extreme case by running
away to her parents or to another man. If a girl returns to her parents
without cause, her mother would send her back. A Havasupai woman
married to such a Walapai runs away every year with a different man,
though the Indian police bring her back to her husband. The Havasupai
consider her justified; their head chief, taking over the function of the
agent, recently married her to another Walapai. However, it is generally
recognized that she is a light character.

Marriages were not often contracted with foreigners. The situation 582
today represents the condition fairly well: there are six Walapai women 648
and one Yavapai married to Havasupai, while a few natives are wives of
Walapai. Walapai women are considered the marital equivalents of
native women; a view undoubtedly induced by a unity of culture,
speech, blood, and by friendship. I was told that Hopi women were
never married, but Cushing saw one there in 1881.[1] Occasionally Paiute
and Navaho women were married.[2] Other tribes were too distant to
furnish wives. Havasupai men did not steal girls from other tribes because it was too dangerous. I doubt that Yavapai women were married
in the old days, because they were the chief enemies.

Walapai and Navaho girls were married when they accompanied
their families down into Cataract Canyon to trade at harvest time. [459]
Such women sometimes stayed only a short time and then went home. [586]
In such marriages a Havasupai man did not live and work with his wife's
parents. Alliances of this type might be casually formed, as in the
following instance of a lost Navaho woman told by Sinyella. Illicit [837]
relations with Walapai, Navaho, Hopi, and Paiute were common.

When I was so big [about fifteen years old] we were camped just a little above Lee Canyon: many Havasupai were camped up there. Six or seven men, my father,

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[1] (a), 551.
[2] Walapai and Paiute are said to intermarry.

Smiley, Jess' paternal grandfather, Watahomidja's father-in-law and Arthur's father,
582 wanted to go hunting: I went along with them up the Moki trail. We went on and
648 on until we were near ahögätavölöjä (Dripping Springs, near Grand Canyon Station). That night we had a little snowstorm. Next morning there was snow on the ground when we went out to hunt. We found tracks where someone had been walking along in the snow; we followed the tracks, and after a little way found the person. It was a Navaho woman. Our people talked to the woman in the Navaho language; "Are you all alone, or are there other Navaho camping near from whom you have strayed?" The Navaho woman said, "I am just by myself: no Navaho are camped near here. I just came by myself from a long way back there. I come from northeast of San Francisco Mountain." There were more Navaho over there with whom this woman had been living. They had told her that her relatives were living along the rim near Grand Canyon Station and Dripping Springs. "I wanted to see them; that is why I came to look around," she said. "I looked around here but I have seen no one as yet, only you people who found me."

We took the woman over to where we were encamped and told her, "Do not be afraid of us and do not go away. Stay with us. While we are hunting about stay at the camp and do some cooking, such as boiling deer meat; get it ready, so that when we get back home we can eat it." She was pretty good at cooking and boiling deer meat and she remained there as she was bidden. When we found her she had no matches or firedrill. We saw that she had taken cedarbark and rubbed it soft and rolled it into a long thin roll, about two meters long, binding it with soapweeds. She coiled this slow match up and set fire to one end of it, carrying a little fire that way.

The Havasupai asked, "Where is your camp? Show us where that place is." She said, "All right," and she went ahead with the Havasupai following. She went to the edge of the canyon directly above Dripping Springs, and we saw where she had built a nice little house. She had nothing there; no bed or anything at all. We asked her, "What things have you been eating?" She said, "I have no provisions to eat at all." At that time there was snow on the ground and when she saw rabbit tracks, she tracked them. When a rabbit went into a hollow log, she thrust a long thin stick, pointed and barbed, which she carried, into the log and twisting it into the rabbit's fur, pulled it out. Then she roasted it. "That is what I did in order to eat," she said.

The Navaho woman showed us where she had camped and then we went back to our camp. Next morning we went out to hunt and caught two more deer. The following morning we started home. My father said, "I am the man who is going to have that Navaho girl. I will lend her my horse to ride." Everything was packed on that horse, and the girl rode it. We put no bridle on the horse; we just tied a long rope around his neck, so that my father, now dead, could lead it, and we started home. That is how we led it along and brought her down home.

After we brought her home up there in the canyon, where there were a lot of men and women, everyone gathered to look at her. We said, "We found a Navaho girl, who was lost in the woods." Everyone looked at the girl and was friendly to her. That girl was afraid of our people and she cried, so we said to her, "Do not cry; they will all be good to you and will treat you well. They will give you plenty to eat." My father took this girl for his wife, and kept her for a pretty long time, I do not know how
582 many, maybe five years. She had no children and then she just ran away.

Some Hopi men came down here and they told her the road by which they had
586 come. The Hopi told her they wanted her to go back to her home. "You go on
648

ahead; after you have gone two or three nights, we will leave. Perhaps we can catch 582
up with you on the way," they said. She had been gone for a day and a night, when 586
my father looked around but could not find where she had gone. Then my father 648
thought, "Perhaps she has gone back home. I will follow her tracks. We want her." My father told Panamida's father, and the two of them went off. They knew where to go, so they rode on fast. They found her tracks just beyond Red Butte. They saw tracks where the girl had gone ahead. The Hopi, going home, had come behind her. They followed along until they reached Oraibi. There my father said, "I have a Navaho girl who is my wife. She ran away and came with the Hopi men." So they talked to the Hopi. One of the Hopi who had come down here had already married that Navaho girl and she had gone back with him. That girl's Hopi husband would not give the girl back to my father. He said, "No." My father said, "You must give me something; then you can have her." So the Navaho girl's husband gave him a good-sized blanket, and so my father let her go.

There are few formal regulations for relatives by marriage. There 606
is no taboo between a wife and her parents-in-law. A man might talk 601
freely to his wife's parents, even on obscene topics. Neither husband nor
wife address their spouse's parents or grandparents by name. The [551]
woman has no relationship term to apply to them, though she may use their names by way of reference. Jess's wife Lina, when speaking to him will say *mamádjïldjïa*, your mother, *mamádjïlatha*, your father, or *huwágalum*, your parents (*huwága*, two). A man uses *gɪnyéga* in referring to his wife's parents, but not when speaking to them. Reciprocally neither a man nor a woman uses the names of their son-in-law and daughter-in-law (and their families?). They use *wɪnyéga* for the son's wife, usually in indirect reference only, but they may also address her by that term. Both use *gɪnyéga* for their son-in-law at all times. I cannot find anything corresponding to joking-relationships.

A record of sixty-seven marriages is appended in full. This includes 58
all living Havasupai, with a few exceptions, but it does not cover every marriage they contracted. Nevertheless, it is reasonably adequate. Forty-five of the fifty-two marriages where the information is precise, [591]
were initiated by temporary matrilocal residence. The number is probably slightly greater than the facts warrant, for I suspect Sinyella, who [115]
furnished the data, of systematizing. The remaining seven marriages are nearly all with widows. A complication that could not be eliminated
is due to the temporary matrilocal residence of new couples when on the [591]
plateau during the winter, with patrilocal residence on their return to the canyon. An unexpected feature is the marriage of neighbors: this 582
in spite of the fact that neighbors are usually paternal relatives, their common seat of residence being the land inherited by the men from their fathers. Possibly twenty or twenty-five marriages are of this type: a

582 number much greater than could be expected on the basis of chance. I am not aware what the causes of this propinquity may be. The dominance of the real property factor in determining residence is clear. In 591 almost every instance recorded the husband returned with his wife and children after a period of matrilocal residence to take up a residence on the land of his own family, land which he and his brothers would inherit from their father.

RECORDED MARRIAGES

591 The sign > means that the man lived for a time with his wife at the home of her relatives. Numbers refer to the camps as indicated on the map (Fig. 50).^ Existing camps are there underscored.

585

551 *7.* Dean, Sinyella's son > Panamida's daughter, Fannie, at her late father's house 4. Returned to 7 until her death; then Dean and children went to Sinyella's, 9.

9. Lenoman, Sinyella's son > Supai Charley's daughter 68. Returned to 9; she died. Married Prince's younger sister (24) and took her to 9; she died.

10. Tcikapanyega lived at 11. Married Djerdwaimo, who lived with her maternal grandfather (where?). Went to 10.

12. Big Jim lived near 12. Married Dasdjigva, who lived at her father's, 70. Went to 12.

16. Watahomidja lived at 68. Married Sudjagedja, who lived at 3. Went to 16. His son Flynn married a Walapai. His second son Joseph married Mamie, who lived with her maternal grandfather, not with her mother, Teyava, at 22.

17. George, who lived at 8 > Callie, Watahomidja's daughter at 68. Accompanied her family to 16. Bought land from Big Jim (12) for house, 17.

18. Jess lived with his father, Tcikapanyega, at 1. Married Lina, who lived with her maternal grandfather at 47.

20. Tohawaga lives at his father's house, 20. His wife, Pagadjahuda, is a Walapai from Pine Spring; married 65, angry, divorced, married 6, who died; married Tohawaga, 20.

21. Oliver, Rock Jones' son, lived with father at 22. Took wife Kitty from father's, 33, at once to 21.

22. Rock Jones, who lived with his father at 22, > Amu, who lived with father's elder brother at 5. Went to 22, his late father's home. His son Kit brought Kaśoda's daughter home from her father's house near 50; she died.

23. His son Joe brought Tahuta from her oldest brother's house, 38. Claude, Watahomidja's son (16) > Elva, Joe's daughter, at 23.

24. Prince lived at father's, 25. Married Taśamadja, who lived at 67. Mike, his brother, lived in father's cave 25 > Sinyella's daughter at her father's house, 9. Took her to 15: she died. Then he > Sarah who lived with her father's younger brother at 38. Took her to 15; she died.

26. Bob lived near late father's house at 26. Akaba lived 71 > Tcahapuinya who lived with her brother at 28. Then he took her to 71; he died; she went to Bob at 26.

28. Thomas brought his wife, a Yavapai, to his father's house site.

29. Captain Jim's dead wife lived with father (near Walapai canyon?). Jim took her to his father's house at 40. Moved to 29; she died. Brought a Walapai woman to 29 in 1919. His son, Crook, brought a Yavapai to 29; divorced.

^![see category 102, p. ¬

1: Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

30. Mexican Jack, Captain Jim's half-brother, who lived with his father's younger brother>Supai Charley's daughter at 69; she died. His wife Teyava has married three times. First to Arthur's older brother, who lived with his father at 6, took Teyava from her father's house at 39 to a garden near 51; he died. Sterling took her to his house (location unknown); he died. Mexican Jack brought her to 30. 591 583 551

32. Richard lived with his older brother, Watahomidja, at 68>Nina, a Walapai. Returned to father's land at 32.

33. Bert, his older brother, took Putcilvoiya's sister from 57 (at once?) to 27; she died. Then he>Mary at her father's house, 63. Brought to father's house site, 33. His son, Bela, lived with him; brought Clara at once from her father's house, 38, to 33.

33a. Barney, who lived with his father's brother's son at 1>Stella, at her father's house, 54; then to his father's house site, 33a.

34. Panamida, who lived at his father's house, 4>Smiley's daughter at her father's cave, 50. Took her to 4; she died. He moved to 34.

35. Supai Jack, who lived with father at 65, took Supai Charley's daughter from her father's house, 69, to 35; she died. He went>Eunice, at her brother, Putcilvoiya's house, 57; then to 35.

36. Pakadagova, who lived at 64>Supai Jack's sister at her father's house, 65; returned to 36.

37. Martin Navajo, Mexican Jack's brother, who lived with his father's younger brother>Roger's younger sister at her father's house, 54. She died; he went to 37, near brother at 38.

38. Spoonhead, his brother, who lived with mother at 38>Prince's younger sister at her father's cave 25; she died. Then he>Sutaluidja at her father's house, 63; then to 38.

41. Austin, who lived at 41 (unclaimed land)>Katie at her father's house, near 24; then to 41.

42. Billy, who lived with father at 63>Austin's father's sister at her father's house, 70. Took her to 42; she died. Then he>Lillie at her father's house, 24; then to 42.

43. Captain Burro, his father, who lived at 63>Dasoiteva at her father's house at 39. Then her father withdrew his consent and gave her to a Walapai. But Captain Burro took her again to his father's land at the Indian Gardens on Bright Angel Trail. Took up location 43 on unclaimed land after 1911 flood.

44. Allen, who lived on dead father's land at 14>Jane at her father's house, 20. Went to 44; she died.

45. Jasper, who lived with his father, Manakadja, at 47>Stella at her father's younger brother's house at 69; then to 45.

46. Lemuel, who lived with father at 35>Esther at her father, Manakadja's, at 47, that is at 46.

47. Manakadja, who lived at 66>Gwegwaɛgwaia at her (and Tohowaga's) father's house at 20. Then to his father's land at 47. Then he discarded her and brought a Paiute (now dead) from Pine Spring; and resuming relations with Gwegwaɛgwaia lived at 47 with both wives.

48. Pete, who lived with older brother at 1>Tekoɛedja, Manakadja's daughter at her father's, 47, that is at 48.

49. West lived with his father's older brother, Sinyella, at 49; took Walapai wife.

591 *51.* Shorty lived with his mother, Capt. Burro's sister, near her brother's house,
63. Teyadjava, who lived at his father's house, 4>Sakwemidja at her father's house,
583 6; then he took her to 4. He died and she returned to her mother on her late father's
land at 13. Shorty>her at 13; then took her to 51 on her father's land.

551 *53.* Mark, who lived on his mother's brother's land at 53>Andjelik at her brother's house, 8. Then took her to 53; she died. Henry, his brother, who lived with their mother at their dead stepfather's house at 52>Nina at her father's house, 69. Then to 53: she died in 1919.

54. Roger, who lived at father's site at 54>Rock Jones' daughter at her father's, 22. Took her to 54; she died. Then he>a Walapai: brought her to 54; she ran away.

55. Tobey, who lived with older brother, Putcilvoiya, at 57>Capt. Jim's daughter at her father's (29?); she died. Took Mecca from her father's house, 48, to 55 on his maternal grandmother's brother's land.

56. Little Jim, who lived with his father at 12>his older brother's wife's younger sister who lived with her father at 70. Then brought her near his brother's, 12. She died and he went to live at 61. Then he>Susie, a Walapai, at Pine Spring; then to 56.

57. Putcilvoiya, who lived at father's house, 60>Deskumlauwa's younger sister who lived with her sister's husband at 62. Then to 57 on father's land. His brother Fred who lived with him (at 57?)>Watahomidja's daughter at her father's house, 10. Then he took her to 57; she died. Then he went>Helen at her father's house, 10; he died.

58. Smiley, who lived alone at 31>a woman who lived at 19. Deskumlauwa lived with Smiley's older brother at 2. He died and Smiley took her to 58 on his mother's land. (His father was a Walapai).

Property and Inheritance

311 Private ownership of land exists only where the land is cultivated.
With the exception of a few patches elsewhere in their territory, such as
423 the Indian Gardens on the Bright Angel trail below Grand Canyon
Station, the fields are located in the vicinity of the village in Cataract
Canyon. About one hundred acres (one-fifth) of the bottom land there
is tillable; depending on the height of the creek permitting irrigation,
all of it is farmed. Holdings are not in large continuous strips, but
numerous patches scattered through the two or more miles of canyon
above the falls. This haphazard distribution is due not only to the
311 chances of inheritance, transfer, and sale, but more particularly to the
133 changes wrought by the marauding creek. The stream changes its
423 level and often its position with each big flood, wiping out some fields and
leaving others beyond the reach of irrigation, forces their abandonment.
The whole group of holdings near Walapai Canyon has been obliterated
in this way. Such changes will sometimes bring hitherto uncleared
311 lands and others long abandoned within the possibility of cultivation,
423 when they are almost certain to be used without delay by someone desiring additional fields.

ing additional fields. Proprietary rights in land depend most emphatically 311 on use, for unless it is generally understood that a patch has not been 423 finally abandoned, someone does not fail to occupy it if it is at all cultivable.

The cultivated land forms a continuous strip through the canyon of corn and alfalfa fields, pastures, orchards, and groves. Boundaries are definite and marked by fences, lines of trees, or ditches. Fencing may be an old custom as Cushing saw wooden fences in use in 1881.[1]

Title to land is in the hands of the men, although because of its 423 utilization title might better be characterized as joint ownership by the family, the economic unit that works it. Women rarely have independent [592] control of land; those who have are invariably widows without other [589] means of support. For instance, a Walapai widow who lives with her Havasupai stepdaughter has taken an unattractive patch for her own. When a woman marries she transfers her planting activities from her own family fields to those of her husband. Children are never land owners, although they may help their elders to plant. There is not even nominal ownership in order to distribute the hazard of bad luck such as occurs among the White Mountain Apache. If parents have sufficient land, they allow their adult children to plant in the surplus. Thus, Tcikapaniga and his wife let their children, Jess (and his wife) and Helen, use half their land. Since Helen married she assists her husband in planting his fields.

Land is inherited in the male line. All the sons share in the joint 428 heritage, which may remain undivided for years until they have established families whose diverse interests make parceling desirable. The [562] widow and unmarried daughters share at least in the use of the land, but they cannot be said to have title to it, since the widow's relatives [589] and the daughter's children never inherit it from them. If the widow re-marries too soon, her interest is lost, reverting to the other heirs. In the absence of direct heirs, i.e., sons or their male descendants, unmarried daughters, or widow, the property goes to the dead man's brothers or their male heirs. Evidently daughters retain some right to share the use of their parents' land even after they marry, since a portion is often set aside for them to plant for the support of their children. Such land normally reverts to their fathers' families. Divorced and widowed [736] women have at all times the privilege of falling back on the parental lands for support.

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[1] Cushing, (a), 374; compare Zuñi sand-mound boundaries [Cushing, (d), 132] and Navaho fences of brush [Stephen, (b), 354].

A typical instance of male succession is that of Kaśada and his three nephews. 428 Apart from other holdings Kaśada's father owned a large tract (from Camps 55 to 57 and beyond, see map, Fig. 59) which Kaśada and his elder brother inherited. The three sons of the latter fell heir to his share. In the flood of 1911 the creek assumed a [139] new course, dividing this tract neatly in two; whereupon Kaśada took the section west of the creek for his own and gave up using any part of the eastern portion. His nephews kept the eastern tract undivided, even after the death of the middle member of the trio. All three lived together on this tract (Camp 57) until the youngest, Tobey, established his home on land inherited from his maternal grandmother's brother (Camp 55). A small part of the tract south of Camp 55 lay abandoned for years. Kaśada's intention of reclaiming it was well known at the time of my first visit, but considered vague; in 1919, he cleared it.

Bob's land was inherited by his widow and her adult son by a former husband. Bob had no male relatives; his older sister, who is well provided for, and another sister's grandson, who often lived with him, received nothing. The heirs have not divided the land.

Nina planted a cornfield independent of her husband. The field belonged to her father's younger brother, Panamida, who let her use it for the support of her two small 423 sons. After her death, Panamida took it back, planting there the next season contrary to custom, but with the approval of the community. Panamida gives some of the corn to Nina's sons.

An uncultivated field, now used only as the dance ground, is claimed by Smiley and Panamida. Smiley, who owned the land, gave it to his daughter for the use of her children; she having married Panamida. She and all her children, save one, are now dead. Panamida claims the field as his, but Smiley says that now the children are dead the field is his again.

Land is also exchanged and sold. Sinyella exchanged a strip of corn 425 land near Rock Jones's house with the latter for a piece below Navaho Falls on which he then planted fig trees. When Jess married he bought a piece of uncleared land for a house site and pasture from Manakadja (an acre and a half for thirty-five dollars). In a measure, this is land given for support of a woman relative—although the price is fair enough—since Jess's wife formerly lived with Manakadja, her mother's father and her nearest male relative save one.

The products of the land belong to those who own it. Others who 423 assist in caring for the harvest, etc., have no proprietary rights although 465 they are commonly paid in kind. This is distinctly compensation. For instance, on one occasion Sinyella had eight women assisting him in curing the fruit of the many peach trees he owns. Two were members of his family group; the others were not closely related. Each one received part of the crop in payment.

Natural products also belong to the land-owner. Trees and brush 423 may not be cut without his consent. Austin owns a cornfield, inherited from his paternal grandfather, west of the old creek bed. In the flood of

1911 the creek took a new course, cutting off the western margin of the field, a few feet wide. Mark could not cut the apparently abandoned trees which grow there for a public bridge without his permission—which he did not ask; hence no bridge. 423

A different conception has grown up about fruit trees, which may be owned independently of the land on which they stand. They are often planted on a relative's land. Thus, Foster planted some fig trees on Jess's (his mother's brother's son) land. When they bear, Foster and Jess, at his solicitation, will share the fruit. If Foster dies without issue, he may tell Jess to keep the trees, or else to destroy them. It is not possible to isolate the idea in most cases, because the land on which an orchard stands must necessarily be in the control of the one owning the trees, but it is significant that they customarily speak of inheriting the orchard rather than the land. So far as they are owned independent of the land, fruit trees are individual possessions, like any personal belongings.

These two notions concerning the products of the land may come into conflict. Duke owns an alfalfa field which is farmed, partly in his interest, by Billy. On the rare occasions Duke is home, he lives with Billy. When Kit Jones cut willows to thatch his house, from the field, Billy objected, maintaining that the brush belonged to him. He threatened to burn the brush as soon as it was dry; Kit believed he was sincere. Kit and Billy are equally related to Duke, being sons of Duke's father's brother and sister respectively. The Jones family (Kit's father and brothers) and Billy have interests in a large fig tree growing on this land. The situation was aggravated by earlier cases of personal conflict, and on this occasion Kit's horses were destroying the alfalfa. Kit's contentions were based, first, on his relationship to Duke, and second, on the dissociation of the produce from the land. 423 578

I do not believe that land, or at least the produce, is thought of as different from personal property, since it suffers destruction on the death of the owner like his other belongings. It is customary to let such land lie idle and weed-covered for one or two years. The crop would grow all right, but they do not like to plant on the dead man's land. Thus, Bob's widow and her son have not planted his land since his death in the winter of 1918. Nina planted a field independently of her husband; he did not plant there the year after her death. As pointed out above, Panamida used another field of hers contrary to this custom. If a man or woman died while a crop was standing, half of it would be used by the heirs and the remaining portion cut down to dry until it can be burned. It is customary to give death-bed instructions to this effect. 423 768

Other property consists of houses, horses, dress, weapons and tools,
422 and the immaterial possessions, shamanistic materials and chieftainship.
423 So far as houses may be conceived as individually owned, they belong to
342 the male head, since he can send his wife (and children?) away. But
nothing else is possible, since the field in which it stands belongs to him.
[462] At least all the heavier work of house building is done by the men. The
[768] house is burned after the death of an inmate.

Horses and cattle are owned and herded by men alone. They have
422 had a fair number of these ever since Spanish days: Garcés found them
[462] plentifully supplied with live stock in 1776.[1] Two or three good riding
[175] horses are killed on their owner's death; others are given away. Saddles
[769] are often burned or destroyed, sometimes being left on the horse when it is killed.

Personal possessions are not numerous. Men and women own their blankets and clothing, with perhaps a gala dress apiece. A man owns his weapons, tools, some buckskins, and perhaps a mask and charm or two; a woman her household utensils, pots, baskets, and field tools. In other words, each owns the articles peculiar to his sex. Husband and wife own and dispose of their possessions independently. I have never seen either
[593] interfere with the other's transaction when selling specimens to me:
422 advice was, however, sometimes asked and acted on. Children own little
432 or no property, a condition which struck both Cushing[2] and myself as
being sharply in contrast with that at Zuñi. For instance, when buying a
858 small burden basket used solely by a little girl, her mother set the price.
Laying this simply to the girl's bashfulness, I offered the coin to her Zuñi-fashion, but her mother objected, claiming it as hers. To test this, I attempted to buy a similar basket from Jess's little daughter. This had been made and presented to her by her paternal grandmother. But the bargain was struck by her parents, although they turned the purchase money over to her. Perhaps boys are somewhat more favorably situated, since they freely sold their bows and arrows when I met them hunting in sport. These weapons were all products of their elders.

A dying man states his wishes respecting the disposal of his posses-
428 sions. This includes land, although the succession to this is rather predetermined. To be sure, most of his choicest belongings, clothing, weap-
[769] ons, horse, etc., are burned or buried with him. Such articles as are permitted to remain are inherited by his children or by members of his family. A woman's possessions go to her children or to her own family.

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[1] Coues, 387 et seq.
[2] Cushing, (a), 561.

Since the little that is transmitted is acquired by the sex to which it is 428
pertinent, there is little inheritance of a husband's or wife's goods by the survivor.

A dying shaman might choose a successor to whom he transmits his 756
spirit and paraphernalia. Bob told people that when his grandfather 424
was about to die, the latter instructed him and gave him his spirit. Bob 428
died at odds with life; he wanted his spirit to leave him and he gave instructions that his rattles and medicines (?) be broken and buried with him rather than give them to his relatives. Chief's status is in- 622
herited, normally in the male line. There are some indications, as given 424
in the next section, that chieftainship is not an office to be filled by a 428
single incumbent, but transmissible and divisible property.

CHIEFTAINSHIP

There are six chiefs today, one of whom occupies a superior status [624
and is recognized by the agent as the head chief; the others are equally 648]
leaders. These men have become chiefs through inheritance, through prestige and renown, or both. Women are never chiefs. Chieftainship is emphatically not a position; it is the embodiment of certain somewhat vague functions.

The Havasupai are accustomed to speak of "big chiefs" and "little chiefs," but I cannot find that there are different words in their language expressing these ideas, or that there is any difference in function. Manakadja, who succeeded his uncle Captain Navajo to the head chieftainship established since reservation days, is called "big chief." But it is clear from the accounts that follow that all that is meant is an especially important chief, the most prominent individual in the tribe. Like the little chiefs, Manakadja is called *gamúlva* or *kahá't*,[1] but he is also known as *handída*, superlatively good.[2] Little chiefs are also (collectively?) called *múlovagïdjïgdïd*. Jess differentiated between them by *múlvak'ïdja* and *pagamúlvakávaitcha*, literally, little chief and big-chief-man.

Chieftainship is defined only by its functions, which consist largely 183
of giving advice and admonitions. This is so largely true that it might be 624
said not that a chief is one who talks, but that one who talks is a chief. Chiefs tell their people how to act, especially the young men and women. The former are admonished to work, farm, hunt, and make clothing and moccasins; the latter to gather seeds, cook, plant, and make baskets.

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[1] Compare the Mohave *kohota* for the dance leader. The Havasupai are not familiar with the word and were inclined to believe that it was a Hopi word for chief, *[illegible]*. [171]

[2] The Cocopa headman is also called good-man (information from R. H. Lowie). The Yuma head chief is *[illegible]* (Trippel, [illegible]).

624 They are told not to be lazy, to care properly for themselves and their
[183] families, their farms, and their property.

If a man refused to obey their advice, refusing to work, they would
624 repeat their admonitions: "Do not be lazy, do not cause trouble. If
626 you do not work or help others, you may get into trouble or you may
starve and nobody will help you then. Somebody might even kill or whip you [which is purely a threat]. If you work and raise plenty to eat, people will come to eat with you, so you and they will have a good time; but if you are lazy, everybody will treat you accordingly. When you marry your wife and children may starve to death. Do not be lazy!" In an obstinate case, they paid no more attention to the delinquent, but let him go his way. He would go about from camp to camp, receiving a little food in return for such small services as collecting wood.

Chiefs address their remarks to the assemblages on appropriate
624 occasions (*skwigwaulg*, to stand up to talk), such as dances, formal
gatherings for the discussion of important topics, invitations, etc., during
battle, at death ceremonies, or informally at the sweatlodges. The
[156] advice of the big chiefs carries more weight than that of the others
[554] partly by reason of their position, but largely because they were stronger
characters. No one chief was either war or dance leader. In battle any
[701] chief temporarily assumed a directive capacity; the warriors would give
more attention to a big chief.

It is not clear that there is any other function beside giving advice. After the flood in 1918 washed the lower irrigating system completely away, Manakadja went about setting stakes to re-locate the ditch. Possibly this is his function, but this ditch supplied his fields as well as those of his neighbors. During the dances all of the chiefs took some leading part in the feasting, racing, etc., but it did not appear they had any peculiar functions. It is quite clear that chiefs have neither power nor prerogatives; they are simply leaders.

Men become chiefs by prestige and renown based on their prowess
624 in war, their prominence in intertribal relations, and their wisdom dis-
554 played in council, or by reason of inheritance. Personal qualifications
428 are an important factor in the latter case too. A chief must be dignified,
industrious, and even tempered; a son who does not display these qualities will have little chance of ever being called chief. Sinyella's father failed to inherit his father's status as big chief, partly because he was such a man and partly because he was completely eclipsed by a rival big chief, Wasákwívámá. Captain Navajo instructed Manakadja and Captain Jim, his older brother's sons, in the ways of a chief; Manakadja in turn is instructing his own sons in the same informal way.

It is not quite clear what is inherited; on the whole it seems to be 624
the right to be styled chief, provided one shows signs of leadership. Yet 554
Manakadja said that when Captain Navajo died his property was divided 428
between himself, Captain Jim, and their half-brothers; at the same time
he became the head chief and Captain Jim became a little chief. He
spoke of the chieftainship as if it were property. It is significant that
none of the three half-brothers (sons of the same father) are chiefs; at the
same time it is recognized that all three are mentally subnormal. Sinyella's
account of this situation, given below, is somewhat different.
Chieftainship is usually inherited in the male line, but there is more than
one instance where the connecting relative was a woman.

Men do not suddenly become chiefs, Manakadja being an exception, 554
but people gradually come to call them so, as they develop prominence. 624
They emphatically do not acquire official positions.

In speculative works on the development of government so much is
made of the dominating character and prowess of chiefs that a few words
defining that of the six Havasupai chiefs may not be amiss. Manakadja,
the head chief, is a man of seventy, dignified, reserved, somewhat simple,
and with a quiet humor; a man who spends much time in a sedentary
way at home, is usually "on show," but far from pompous. He is an
indifferent talker. His brother Captain Jim, slightly younger, is energetic;
active as an organizer of the younger men, particularly in relations [649]
with the Walapai and Navaho, who usually send dance invitations, etc.,
intended for the tribe to him. He is not a fluent talker but commands
respect. Watahomidja, a man of about the same age, is quiet, reserved,
not especially dignified, and is the center of the conservative element.
He is a fluent talker, but not emphatic, and, I suspect, somewhat cynical.
Panamida is a little younger; he is phlegmatic, not especially dignified,
fond of horse-racing and encourages the boys in that sport. Big Jim,
fifty-nine, is energetic, aggressive, busy, a fluent and effective speechmaker, [537]
making free use of rapid and graphic gestures, and a potent influence
in council. Sinyella, aged seventy-one, is quiet, kindly, far more
industrious than the average, shrewd, observant, and active in directing
the dances. Like Manakadja he is a poor talker. Jess gave the consensus
of opinion on the order of the best speechmakers as Big Jim, Watahomidja,
and Captain Jim, which agrees with my own observations. I cannot
believe that these men are the most powerful personalities, as theory
would have it, for there are others of the same age and character who have
not the good fortune to be called chiefs. Furthermore, there is another 554
outlet for the exceptional individual, namely, shamanism. In fact, I 756

756 think that the two living shamans are far more aggressive and forceful
554 personalities than any chief save Big Jim.

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The following paragraphs give Sinyella's statements of how these men became chiefs. Remarks concerning Manakadja and Captain Jim are somewhat distorted by his jealousy.

Panamida's father, Wasákwivámá was a man without fear; he traveled to Oraibi and the Walapai when enemies were about, so they called him little chief. He was called big chief [in the first half of the last century] after having pulled three enemies from the cliff (see the account of the raid, pp. 357). Sinyella's paternal grandfather was big chief at the time of this raid: they called Wasákwivámá big chief also. (See p. 375 for an account of the peace he negotiated with the Yavapai and Apache.) When Wasákwivámá died, Captain Navajo became the leading chief. Wasákwivámá's father was not a chief. His three sons, Teyadjává (corn thief), Supai Charlie, and Panamida were chiefs.

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I never heard that Captain Navajo's father was a chief. Navajo was not a chief until after he was married; he was about thirty-five to forty years old then.

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Before he married, Navajo heard about a lot of Walapai girls, and he said he wanted to go marry one. So he stayed with the Walapai for a long time until he married. He stayed a little longer and then said, "I want to go to the Mohave country," but the Walapai said, "We do not want you to go. Those Mohave men are wicked; they are our enemies. You will be killed down there." But he said, "I am sure I want to go." One Walapai said, "I will go with him." So they walked to the Mohave. Navajo had only one big blanket with him. He said to the Mohave, "I brought this blanket to trade for a horse." A Mohave said, "All right; that is pretty good. I will trade a horse with you." So they gave him a young horse. A big chief of the Mohave said, "Our men want to kill both of you: that is what I hear them say. I want both of you to go back right away. I do not want you to be killed here; I am a good friend to you." So both men mounted the horse and rode back at once, hiding along the way. When they were a little east of Kingman [in the western Walapai country] the horse gave out. They left it there and walked home to the other Walapai. The Walapai people said to him, "You are a pretty big, good man; you are not afraid of the enemy. You go right into the enemy's house to trade. Our people do not do that; you are the first one to go there. We say you are a great big man like a big chief; we call you chief." That is how he first came to be called chief. Navajo stayed with the Walapai for several days. Then he went after the horse and brought him back. When the horse was rested, he came home; he did not bring his wife.

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When our corn was ripe in the early fall, the Walapai came down here [about 1886] for some corn and other food they liked to eat. One of the Walapai men, Smiley's father, was a shaman. The Havasupai did not give this man anything, so he felt angry and thought what he would do to make the Havasupai children sick. All the children defecated blood. Another shaman, when he cured the children, said, "That man causes the sickness you have." A good many children died of it, but no adults. That Walapai shaman heard what they said and was afraid. So he fled about sunset to a little canyon above the village and camped there. Navajo, his father, his brother, and sister's husband all said, "We want to kill that Walapai shaman. He made the sickness of which the children died. We feel pretty angry." When it was nearly

daylight they set out. They found him camping a little way up that canyon. They seized him, split him down the breast and belly with a hatchet, and broke back the ribs. Then they threw the corpse aside and came back.[1] Navajo had talked very emphatically, saying what he wanted done, and they did what he said. So the people said to him, "You are a big chief." 159 624 648 754

Navajo's mother was made sick by another Walapai shaman down here in the village. He sent his spirit to her: she died. That Walapai shaman became afraid of Navajo and fled. Navajo heard that the shaman had been gone only a little while, when he set out to kill him. The shaman with his wife and father had climbed halfway up on the white cliff on the west side of the canyon, when they looked down to the canyon bed and saw Navajo coming. Navajo followed them up the white cliff. The shaman and his father was nearly to the top when he told his father to go along the face of the cliff to hide. The shaman and his wife then fled across the plateau. When they were a little way from the rim, the shaman sent his wife ahead along the road. She went along by herself. The shaman said, "I will go down into Mátaḳwióå canyon [the next one west of Cataract] and climb up on its west wall. I will meet you at a certain place beyond there." And he went across that canyon. When Navajo was halfway up the white cliff, he saw the old man above him walking along a ledge near the top. Navajo climbed up and went back a little way from the rim, but could find no one's tracks. He stopped there and turned back in the direction the old man had taken; he thought he would kill him. He ran to the rim and walked along the ledge toward the old man. When he met him, the old man said he did not want to be killed. He called Navajo his relative, "Súdjå, súdjå,[2] I do not want you to kill me. I am a pretty old man; I will not live much longer." Navajo did not listen to him; he had a long sharp knife with which he stabbed him all over. Navajo was a pretty bad man. Those two Walapai shamans did wrong to kill our children and women. Navajo killed two men for it, and the Havasupai said, "You are a big chief now." 682

Not very long after this, a Paiute man came down that same trail. Navajo asked him where that Walapai shaman was camping. The Paiute said he did not want to tell him; he had not seen the camp. They asked him repeatedly, but he would not tell. Finally, after they had given him many presents, he said, "Yes, I know where his camp is. That is where I come from; he camped with us." The Havasupai gave him corn and many other things. When the Paiute went away, Navajo and three other men went with him. When they climbed to the plateau, Captain Navajo said, "I do not feel strong enough to walk along with you: I think I will go back" and he sent the three others with the Paiute. They went on, reaching the camp when it was a little dark. The Paiute man said, "Hide in the woods while I go to the house." He said, "After I have gone to the house and everyone is asleep, I will come back and show you where his camp is. Then you can kill him." So they waited until midnight, when the Paiute man came out and told them. He led them quietly and showed them the man's house. The Walapai shaman was lying close to a little fire. One went in and shot him through the head, killing him. Then the three returned at once and told Captain Navajo, "Yes, we killed the shaman." Navajo said, "All right, that is what I wanted." Everything Captain Navajo said, the people did. They killed that man; then they made him the big chief. Wasákwívàmå, who was big chief, was still alive at the time Navajo killed these men. So these two men were both big chiefs at the 624 159

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[1] This is identical with a mythical incident.
[2] For *su'ídjiga*, a man's older brother's son.

159 same time. Waatkwivimà lived for a long time after this. I was a lad at the time
624 [about 1860-65].

Captain Navajo took quite a few men with him to Oraibi. The night they got
648 there, while they slept in a Hopi house, some Navajo raided and took away all their
horses. The other Havasupai stayed in the Hopi house, but Captain Navajo and a
159 Hopi friend, who gave him a horse to ride, followed the horse tracks. They went on
624 toward the east until when it was nearly sunset they reached the top of a high mesa. They looked down into the bottom land, where they saw a lot of Navaho houses, with a great many horses nearby. They waited on top of the hill until it was a little dark; then they descended the trail toward the houses. The Hopi man said, "The Navaho do not turn their horses loose. They keep them close to the houses at all times. They keep their saddle horses tied to the house and continually ride out to watch the herd. I think that they will see us, and perhaps they will kill us. I think I am afraid to go down there with you. I will stay here, while you go alone and try to cut some out of the herd. I will wait here." So Captain Navajo went down alone. He went near, tied the horse he was riding, and walked close to the houses to look at the horses. He walked among the houses, where a few horses were tied to each one, until he came to a house where the greatest number was. A few were hobbled; he took the hobbles off, and walked away, driving the herd slowly before him. He got back to where he had tied his horse, and then drove them fast up the trail. Just as he got to the top of the mesa, he heard the Navaho shouting below. Then he whipped his horse and came back as fast as he could. The Hopi man had already gone. "Perhaps he was afraid," Captain Navajo said. When Captain Navajo was halfway back two colts began to nicker: they kept this up, so he shot both with his arrows. He brought the horses into Oraibi just as the sun was rising. The Hopi said they were glad. The other Havasupai had all gone home while he was away; some walked, others bought horses to ride. The Hopi said, "Hurry and eat, and then go right along." While he was eating, they prepared provisions for him to carry. The Hopi said, "Maybe the Navaho are following you and are nearly here. You had better hurry." One of the Hopi men helped him drive the horses. They drove them fast down from Oraibi mesa and on along the road. After they had gone only a little way from Oraibi, the Navaho came into the pueblo. The Hopi said to them, "He brought the horses in before dawn; he ate a little and then left before it was daylight. He has been gone a pretty long time. We think he is now on the other side of the Little Colorado River." The Navaho said they wanted to follow at once. But the Hopi said, "When he went over and took your horses, the other Havasupai who were here had half their herd left and they went back. Perhaps if you follow him you will run into them and they will kill you." Thus they lied to the Navaho. The Hopi wanted to hold the Navaho at Oraibi. So the Navaho turned back. The two men drove the horses along as fast as they could. When the horses they were riding began to slow up, they changed to other horses; they did this all the way. They followed the tracks of the other Havasupai who had gone before. They crossed the Little Colorado just above the present bridge and when they were a little way beyond on this side, at Háłny átovokyóvà (black water precipice), they caught up with the others. Everyone felt glad. Captain Navajo did this by himself; he went alone to the Navaho camps and stole horses, so the Havasupai called him a big chief. All the other tribes around heard about him and when they saw him, called him big chief too. He was a big chief all his life long and died [about 1900] when he was an old man.

624 648 159 The Walapai knew Captain Navajo as chief very well. After his death, the Walapai big chief thought who would be big chief here: "I think that old man Captain Gave would be pretty good, but he is a very old man and could not be chief long." Next he thought of me [Sinyella] and of Supai Charley [Waaákwivámä's oldest living son], but he thought Manakadja, who is related to Navajo, would be better. "He is not old; I think he would be pretty good; I think he can take Navajo's place." We had no chief, so we took Manakadja in his place at once. Manakadja had never done anything notable but we accepted him. They called him just a little chief [?—I think he means that Manakadja would only be a little chief if the agent did not recognise him as head chief]. The Walapai big chief and Captain Navajo were fast friends; that is why he interfered. The Havasupai owed no allegiance to him.

Captain Jim was [probably] not a chief before Navajo's death. He always went to the Walapai death ceremonies, where he would make speeches after the Walapai chief. So the Walapai call him a little chief. Our people do not call him chief. [This is not true.] Perhaps if Manakadja or Captain Jim died, one of their half-brothers would take his place.

My father's paternal grandfather was a big chief, a very big chief. He had two wives, each bore him two boys. The oldest brother was told, when he was a young man, that he would have his father's place. He was big chief a short time when the enemy killed him. The oldest boy by the other wife was told to be big chief; after a very short time the Yavapai killed him too. This man's younger brother was made big chief; he was killed by the Paiute after a short time. The last one was made big chief when he had grown to manhood. They said, "We want you to take your brothers' place and be big chief." This one was my paternal grandfather. He had two sons; the younger died. The older was my father. When my grandfather was killed, people said that his big chieftainship was gone. So they did not call my father chief. After my father died, I traveled everywhere so that the Walapai, Oraibi Hopi, and the Navaho came to know me well and they called me little chief. I did not want to be big chief.

624 159 Dean [Sinyella's second son] said to me, "You are descended from the big chief, but you are not big chief. Pretty soon you will die; then I will be big chief." Lenoman [the eldest son] will be little chief in my place, but Dean wants to be big chief. He said, "That big chief down there [Manakadja] don't go about. When I am big chief, I will ride around all the time and talk, talk, talk." I said to Dean, "I will die soon and then you will be big chief." Watahomidja will be a big chief too some time.

Watahomidja is a little chief; his father was not. But he inherits the chieftainship from his maternal grandfather who was also little chief by inheritance from Pa'hlíga'mí'i. Watahomidja is a good man, and old enough. He tells the people what to do, and they do it, for his advice is good. Soon they will call him big chief, because he is related to Pa'hlíga'mí'i. I hear him; he talks well.

Big Jim's father was not a chief, but his older brother was a little chief. Big Jim took his place when he died. The Walapai, Hopi, Navaho, and Yavapai all know him: he is a good friend of theirs, so they call him little chief. [Jess added that if Big Jim died they might call Little Jim, his half-brother by the same father, chief in his place.]

428 624 554 The principle involved in these cases is clearly that a man is recognized as a leader because of a combination of distinguishing characteristics, bravery, enterprise, and shrewdness. There is a tendency to transmit

[text continues on p. 243]

1:Spier E-5 (1918) 1928 NT14 Plateau Yumans NT14
Havasupai

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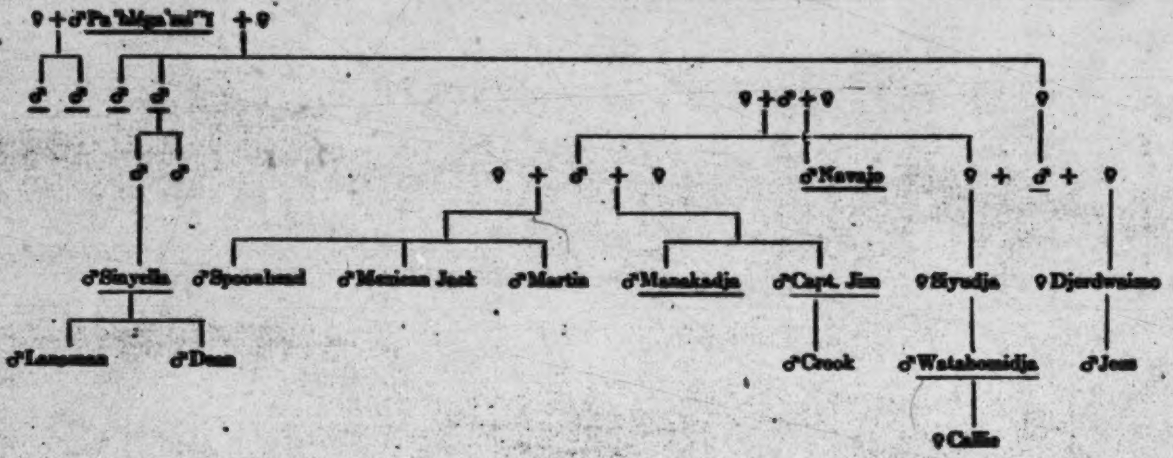
[p. 242]

INHERITANCE OF CHIEFTAINSHIP


♀ + ♂ Pa'hága'mi'i + ♀
♂ ♂ ♂ ♂
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♀
♀ + ♂ + ♀
♂ Navajo
♀ + ♂ + ♀
♂ Sinyella
♂ Spoonhead
♂ Mexican Jack
♂ Martin
♂ Manakadja
♂ Capt. Jim
♀ Siyudja
♀ Djerdwaimo
♂ Lanamen
♂ Dean
♂ Crook
♂ Watahomidja
♂ Jess
♀ Callie

(The names of big chiefs are underlined with a heavy rule; those of little chiefs with a light one.)

the social position he makes for himself by inheritance, but the heir 428
must have demonstrated his own ability before others will recognise that 554
he has inherited the status. 624

There are no formal councils: most matters of importance are dis- 623
cussed by the groups lying about the sweatlodges waiting an opportunity to enter. Occasionally, somewhat more formal meetings are held. On August 11, 1918 two Walapai, Doctor Tommy, a shaman, and Waglaga, both elderly men, arrived. The following morning word was circulated that there would be a meeting at Captain Jim's camp. About forty adult men seated themselves in a rough semicircle, partly along a convenient bank, with the two Walapai at one end. Manakadja sat opposite the group at the center of the arc. Waglaga spoke first, then Bob, a Havasupai shaman, Doctor Tommy, Big Jim, Captain Jim, Watahomidja, and Manakadja. Neither Sinyella nor Panamida, the
other two chiefs, were present. The Walapai brought an invitation to 623
attend a mourning ceremony to be given in memory of a Walapai chief, 648
who before he died the year previous had asked that his friends, the Havasupai, be invited. They asked who was going to the meeting. Bob replied for himself that he had just recovered from illness and was too weak to go. Big Jim, Captain Jim, and Watahomidja repeated the Walapai message and asked who was going. Manakadja also repeated it and announced that he did not intend to go. The delivery of the Walapai was almost a chant, continued as long as the breath held out. Roger, a young man, hard of hearing, seated before them, repeated their concluding words, until the speaker, taking another breath, proceeded, first repeating his own last words. Thus, Waglaga, "Something is not good"; Roger, "Not good"; Waglaga, beginning again, "Not good, but so and so . . ." Sometimes Roger would add a phrase to carry the sense forward, as "Someone is not willing"; Roger, "Not willing, but so and so is . . ."; Waglaga, "Not willing, but so and so is, and therefore . . ." Some of Roger's additions were evidently semi-humorous as they provoked laughter. The speeches of the Havasupai were more declamatory: they had no such aids.[1] At the end of every man's speech
there was a chorus of approval; *hánigá*, good. The Walapai brought and 623
passed about a quipu, a woolen cord six inches long, with seven knots 648
representing the seven days until the ceremony, viz., they would start 805
in three days, take two days on the trip, and the next day (August 18) 211
the meeting would begin. The knotted cord was handed about and explained privately at the end of the speech making

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[1] These speeches were not recorded.

623 plained privately at the end of the speech making. Ultimately about fifty men and women went to the Walapai ceremony.

648 The repeater, Roger in this case, is invariable when strangers speak formally. Anyone who wishes may perform the function.

Garcés observed the same type of formal meeting among the Walapai

171 in 1776.

> 623 On the following day there were arriving bands now of six, now of eight men, he who came at the head of each one of them making his harangue in my presence, and the Jaguallapai captain who was accompanying me responding to them in my behalf. This address of welcome is a custom among them; and at its conclusion each (speaker) turns to his band, asking them if he has spoken well and if that which he has set forth to them has suited them. I observed on this occasion that all of those of the band unanimously responded alike to their respective captains that it was good.[1]

TRADE

An active trade was conducted with the Navaho and Hopi to the

439 east and with the Walapai and Mohave to the west. In fact, we may properly speak of a northern Arizona trade route from the Hopi to Mohave, independent of more southerly tribes and cut off from those to the north by the Grand Canyon.

The Havasupai are noted for their buckskin among other tribes,

[281] according to Cushing,[2] but it must be added that they have no special process of tanning. Their trade with the Walapai was in eastern woven stuffs exchanged principally for raw deer hides, or sometimes tanned skins, and such far western articles as abalone or haliotis shell and the ears of dwarf corn obtained from the Mohave. The skins were tanned at home and carried to the Navaho, Hopi (chiefly at Oraibi), and the few Zuñi met in the Hopi pueblos. Loom products, blankets, sashes, etc., were mostly desired of the Hopi; silverwork, Hopi pottery for storage vessels, stone and shell beads, and buffalo (*ʌmθiŋ*) skins were also obtained. In return they furnished tanned deer, antelope, and mountain sheep skins, shirts and leggings of the same, mescal, piñon nuts, some baskets, and horn ladles which the Hopi flattened and bored for spindle whorls. The Hopi also desired ears of seed corn as long as the forearm from elbow to fingertips. Paiute were also met on the Little Colorado and among the Walapai, but occasionally visited at home. Garcés furnishes interesting evidence of the extent of this trading at the end of the eighteenth century. He found Hopi shirts and Spanish articles from the same source, among the Walapai, where there was a Hopi couple returning home by

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[1] Coues, 325–326. Garcés is somewhere between Truxton Canyon and Peach Springs, that is, in Walapai territory. He calls the people Yabipais, but he uses that word for any Yuman-speaking people east of the Mohave.

[2] Cushing, (a), 553.

the direct route across the head of Cataract Canyon. He found the Havasupai well supplied with red cloth, iron tools, cows, and horses from the Spanish settlements in New Mexico obtained through the Hopi, for in fact the Havasupai camps on Moenkopie Wash provided a readily accessible trading station. On the return journey, he was accompanied by Havasupai going to the Mohave to trade mantas, leggings, and pieces of cowhide for "shells—only for white sea-shells, for no others do they receive in exchange."[1]

The exchange value of articles in the period 1840–65 gleaned from Sinyella's and Manakadja's reminiscences, is as follows:—

Havasupai:	Big blanket	—*Mohave:*	Young horse
	Saddle blanket	—*Paiute:*	Two skins of good-sized bucks
	Tray of shelled corn	—*Navaho:*	Saddle blanket
	Small burden basket of shelled corn	—	Big blanket
	Biggest burden basket of shelled corn	—	Horse
	Two bundles of dried squash		Big blanket
	Small tray of beans		Good-sized blanket
	Two buckskins and a little corn	—	Horse
	Big blanket	—*Ute:*	Gun
	Fair-sized buckskin Ten silver buttons	—	Ten small charges of powder Ten bullets Ten percussion caps
	Big blanket	—*Walapai:*	Three buckskins
	Decorated blanket (all-over pattern of black lozenges, each containing a dot: *dätwilicádiled*)	—	Four buckskins
	Four blankets	—	Horse
	Five blankets	—	One good horse
	Large and small buckskins	—*Hopi:*	Large blanket
	Seven or eight buckskins	—	Horse
	Ten buckskins	—	Race-horse

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[1] Coues, 319, 320, 326, 334, 337, 339, 340, 345, 387, 410, 414.

439 The rate paid by the Navaho is probably abnormally high as their
demand for foodstuffs exceeded their ability as refugees to pay.

Trade was not solely in the hands of the Havasupai. The abundant harvest and the attendant dances in the canyon provided a strong incentive for visiting and trading, especially to the Navaho and Walapai. The Walapai also traded directly with the Hopi of Oraibi. Journeys to the Walapai for visits, dancing, and trading, were frequent. On the whole, trading was incidental to other pursuits, and, considering the relatively small amount that changed hands, was little more than an exchange of presents and the profits of gambling.

177 Trade visits, etc., provide an effective mechanism for culture ex-
439 change. But more particularly participation in intertribal relations
648 and the acquisition of knowledge of the foreigner's ways reacts to a man's
554 credit. It is clear that a man's prominence is enhanced in this way,
and may even become the basis for recognition as a chief.

Columns of smoke are raised from time to time by traveling parties
202 to attract attention or to signal friendly intentions. This is evidently
customary among all the tribes of this region (see pp. 371, 379).

[439] The following account indicates the type of casual visit for the pur-
648 pose of trade. It is clear, however, that gain is not the chief interest.

484 When I [Sinyella] was four feet high the Yavapai liked to come to this place to
fight; they killed so many every time. My relatives were afraid on this account and
722 they wanted to go to stay at Oraibi where there were many men. So we went and
there I played with the Hopi boys and learned the Hopi language.

This was the very first time I made a trip to Oraibi. We started from the village
224 to go up by Tovŏkyóvá [the dry bed of a waterfall, Lee Canyon] and camped in a little
484 cave nearly at the plateau. There were a good many people with us. They said
648 among themselves, "We would like to go out and hunt for mountain sheep. If we kill
some we will eat them," and others agreed. In the morning all the men went hunting
on the plateau to the west. When the sun was halfway down in the sky we heard
someone holler from the hilltop in that direction. They shouted, "One man has fallen
down the white cliff and has been killed." Then all the hunters came home and told
us. "They found a flock of mountain sheep. There were several rams with them. One
of the men shot a very big one with an arrow, and the other sheep, the big ones, ran
off. The wounded ram jumped part way down the white cliff, and ran along a very
narrow ledge. Two men jumped down from rock to rock and along the ledge, follow-
ing him. The ram stopped at the abrupt end of the ledge. My father and Jess'
grandfather followed the ledge. The ram turned toward the men and ran fast at them:
he held his head down sideways. My father stood right against the wall; the other
stood right on the edge. There was not room enough; it was very narrow there. The
ram butted Jess' grandfather off the cliff to the bottom. The ram stood right there,
until all the others came and killed it, and then it too fell down the cliff at the same
484 place. So we all came down the Tovŏkyóvá trail and went around into the canyon
648 where we found the man at the bottom of the cliff. We carried the body away, dug a

hole, and buried him.[1] Then we all went back to the camp and the next morning we went on. 484 648

At that time we did not have many horses to ride; perhaps our family had only one. We just kept walking along. I do not remember exactly where we camped. I know we camped above Dripping Springs [west of Grand Canyon Station], where we stayed two nights. Then we set off again and got to Long Jim Canyon [east of the station], where there are big caves in which we camped one night. Next day we got to Hagáʼuvád'ï [Hance's Ranch, east of Grand View] and the next day we camped at I'ï'má'hwa'áhá [Deer Tank, to the north of Coronino Basin]. The next morning we went on down to the bench above Hagáʼel'lá [Little Colorado River] and along it up the canyon. We stopped that night at Tatá'áhà, where we found a lot of Paiute. We stayed with them for two or three sleeps. Then one morning we continued up along the bench to its end [?] where the Navaho Bridge is now; we went up a little further and crossed the Little Colorado. We climbed up on the red bench on the other side and camped at Wihwátágïl'ïá (red pinnacles). Next morning we went up the slope toward the east. When on top we made pretty good time traveling and got close to Oraibi. This camp was at K'eyúdïgá (gulch). Next morning we went on and reached Oraibi about midday.

All the Hopi came out to see us. They said in their language, "It is very good to bring the women and children with you. We are glad to see you." We went into Oraibi and each of our families took up quarters with friendly Hopi. The Hopi said, "It was pretty good of you people to come to see us. Do not go away soon; stay with us a long time. That is what we like." I think it was about harvest time; the Hopi were gathering their corn. The Hopi wanted the Havasupai to go with them and gather their corn; so they did so. I was a little boy and I played about with the Hopi boys. 648

We stayed at Oraibi a long time: I think, until it snowed. When it was very cold, we started back. We stopped at Wihwátágïl'ïá for a little time. Again we moved back across the Little Colorado, but not by the same road; this time a considerable distance above. We came out to the west on top of a high mesa, Amádl^{a}n$_{y}$ulnyá (antelope trail). When we were a little way to the west of this, we stayed in a big cave in another canyon, Waigátïdà. We stayed at this place a pretty long time. When snow lay on the ground we hunted rabbits. We stayed nearly all winter, until there was only a little snow left on the ground; then we came right along. At each camp we stayed for two or three sleeps. At that time the trail came by the north side of Wigádáwï'sá [Red Butte]: this was the road we followed. We got to Ha'apu [Rain Tank] where we stayed a long time again. Again we moved toward home: we stopped to camp at Huwafádjahwilà [Little Red Rain Tank]. Next morning we came on and got to Huwafáʼáldivá. Here some said that they wanted to go down into Grand Canyon onto the red bench. So they went down Padjïnyáhamö [man's trail, i.e., Bass's trail] where their home was. My father and some other men just kept coming along the rim of Grand Canyon and along the rim of this one, to Lee Canyon where we camped for several days. Then a lot of our people came down that canyon wanting to go to the village. Some of the others wanted to go down on to the red bench in Cataract Canyon. My father and an old woman took their families along the bench. We followed down that canyon which runs westward from the 484

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[1] At this time it was customary to burn the dead; they are now buried.

484 point of the plateau to where our home was on the red bench. Then we gathered mescal and roasted it in a pit. That was pretty good for me; I ate plenty. I was a long way off and felt pretty bad, and when I got back, I was glad. When I was out of my country over at Oraibi, I thought all the time that I would like to be home, so I felt pretty glad when I got home.

[648] After I was home a little while that first Yavapai raid occurred.

WAR

721 Warfare among the Havasupai was chiefly defensive, for they numbered too few to carry on effective offensive operations. However, they made raids against their nearer enemies from time to time.

648 [196] Their traditional enemies are the Yavapai and the associated western groups of White Mountain and Tonto Apache. The tribal designation for the first is in fact also the generic term for enemy, *itcahud*. They were intermittently hostile to the Navaho, with whom they seem to have come but infrequently in contact until the Navaho were forced westward in the middle of the nineteenth century. Thereafter they were usually inclined to be friendly. Their relations with the Paiute were similar. These people were sometimes encountered along the lower Little Colorado, but more frequently they were met in hostile engagements in their own territory north of the Colorado. They were probably fought with no more than were the Navaho, but this seems largely to be due to their inaccessibility. The friends of the Havasupai were the Hopi and of course the Walapai, with whom they maintained steadfast amicable relations. Oraibi figures in the tales as a sort of neutralized trading station, with its inhabitants strongly biased in favor of the Havasupai, or at least so the latter thought. The concerns of the Walapai were always those of their eastern relatives, who joined them in raids on the Paiute and who vicariously shared their enmity for the Mohave. Other tribes were too far away for conflict.[1]

726 722 Raids into Cataract Canyon, which make up the largest part of their hostile relations, were made by the Yavapai with their Apache associates and on rarer occasion by the Paiute. The raiders would suddenly appear in the village at dawn. This gave them the advantages of surprise and a long period of daylight in which to make good their escape. At the first alarm the women and children scattered, climbing up the cliffs to hide among the rocks on the red sandstone bench. Some men, at least, would fly with them, until an effective skirmish line could be formed to repel the invader and recover their booty, chiefly horses—

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[1] I believe Mooney must be mistaken in identifying the Havasupai with one of the groups raided by the Kiowa, (a), 165.

and scalps. It seems that raids were sporadic, and I gather, may have 726
averaged not more than one a year. During these periods of insecurity, 722
the natives were accustomed to live in the little caves and on the ledges
along the cliffside in order to make their escape more easily.

The Navaho did not raid into the canyon, but they would sometimes 721
drive off the Havasupai horses when the latter were trading in the Hopi [439]
villages, or they would descend on some returning, heavily-laden trading
party, and kill or despoil them.

Offensive operations did not figure to any extent in Havasupai life,
partly because of their numerical inferiority and partly because their [511]
material existence was better than that of any of their neighbors, with the
exception of the Hopi. War activities do not appear to have offered
absorbing interest as a general rule, although prowess in war was a decisive factor in bringing social distinction, i.e., chieftainship, to some.

Weapons are bows and arrows, hatchets, and clubs. The hatchets 411
may only have been iron tools acquired through the Hopi. The club is a [439]
single piece of heavy wood, with a round head 10 to 12 cm. in diameter,
and devoid of a rawhide cover. This was used with a descending, smashing blow, not at all like the punching stroke of the Mohave with a club of a different shape. A sling is also used, although it was not seriously considered a weapon. Sinyella said, "The last time the Yavapai came I was a young lad. I made a sling and threw rocks at them. I do not know whether I hit any or not; I was high up near the top of the red cliff."

Arrows used in war are said always to have been poisoned. Poisoned arrows are kept in the quiver with the untreated variety. It did not harm the meat of a deer, for example, but this is at odds with the supposed effectiveness of the poison as recounted in the tale of a raid by
whites. The poison (*paisdha*) was made of a black substance in the big 278
scorpion, centipedes, red ants, *matgínyué* (a small black bug that bites), 411
jimpson weed, and *qwdgámund* (a weed growing on the canyon bench).
These are mashed, dried, and stored. Soapweed leaves are thrown into the fire to get hot, and wrung to expel the juice. The little finger is wet with this glue, dipped in the powder, and a little is put on arrowhead and foreshaft. A mere scratch is sufficient to kill.

Armor took the form of a shirt or smock, fitting close around the 713
neck and hanging nearly to the ground. It was composed of two thick
buckskins before and two behind; the thicknesses sewed, but not glued, together. A small buckskin was twisted into a thick loose rope and worn around the neck like a muffler. A big buckskin was rolled into a bundle

713 with a thong tied to one side to form a handle. This was carried in the
left hand to protect the face. Such armor would turn arrows.

A shield-like device was formed by hanging one or more heavy
buckskins like a curtain from a bow held out horizontally before the
body. Arrows striking this curtain would either fall harmlessly or hang
in it. Men with such temporary shields and those with armor carried
726 clubs in their free hands. They were expected to advance steadily in
close formation in the forefront of the attacking party. Others followed
with bows drawn closely crouching in this protection. The bearer
would lower his curtain-shield an instant while his companions shot, and
quickly raise it until they were ready to fire again.

The curtain-shield is credited to the Walapai and Yavapai by my
171 informants. The usual rawhide circular shield (*súedkóvá*) is not made by
411 the Havasupai, although it is said to be used by the Hopi. Slat armor is
not made. Spears are not used, but they have been seen in the hands of
the Yavapai and Hopi. Cushing, however, credits them with a wooden
pike about 125 cm. long, pointed and hardened in the fire.[1]

In taking the offensive, as against the Yavapai, they proceed to
726 the neighborhood of the enemies' camp and wait in hiding while a few
scout ahead. When scouts are out of contact with their own party, or
[198] when they fail to find the enemy, they communicate with one another
by calling in imitation of the horned owl, coyote, or screech owl (*gágǫ́pá*,
a little bigger than a man's fist and having horns). If they locate the
enemy, they return without disclosing their presence by such calls.
Then all move together, approaching the enemies' camp in the night.
The bull-roarer is swung to make the wind blow hard, so that the enemy
will flee before the wind. A short time before dawn, some surround the
camp, while the others remain waiting for the first flush of daylight.
As soon as they can barely see, those in the main body rush into the
camp, shouting and clapping their mouths.[2] The enemy, confused with
sleep, attempts to flee, but those surrounding the camp wait to catch
and club or shoot them. So far as I know it was not customary to take
[727] captives. There is no special war leader, either on such raids or in
[624] defending the canyon home; those who are chiefs are normally leaders.[3]

Scalps (*gáwawid'g*, scalp; *gáwáwá*, hair) were taken, the cut being
727 made around the margin of the scalp. "Taking the scalp is like taking
the hide of a deer; the man who kills the enemy gets the scalp." (The

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[1] Cushing, (a), 550.
[2] Cf. Mohave (Pattie, 133).
[3] Cushing, (a), 551.

scalps are washed with soapweed by an old woman in one tale.) He 727
hangs the scalp from a pole set up in a clearing and calls everyone to
come and dance. Men and women wash and don their gala dress, paint-
ing their faces in any style and color they choose. All the men and
women dance around the pole with the same shuffling sidewise step used
in the social dance. They pat their mouths as they shout. They prob-
ably do not care for the scalp after this dance. It is interesting to note
that while these people have observed a Paiúte victory dance they have
not borrowed any of its peculiar features. There is no definite system of [703]
war honors.

Taking the whole scalp is also credited to the Yavapai by my in- 711
formants (although Corbusier says they took none.) There is no purifi- [727]
catory rite after killing, nor set speeches made to war parties as among
the Pima. The wolf dance (beating on a hide) of the Lemhi Shoshoni,
Nez Percé, and many Plains tribes, is unknown.[1] Scouts wore neither [714]
wolf hides nor grass headdresses for concealment.

War with the Paiute. This happened at Gwidágwit [Uinkaret Mountains] either 648
before I [Sinyella] was born or when I was a little baby.

There were many Paiute living on the east side of those mountains who wanted 721
to fight. They crossed Hagátalá [Colorado River] a little below Hudltovak,yóvá [pine
precipice, Moho Canyon in the eastern Walapai country]. They came across coun-
try north of Pine Spring. Many Walapai lived along there. There they killed many
men, women, and children. They repeated this once or twice, killing quite a num-
ber of Walapai. The big chief of the Walapai thought that the Walapai ought to
cross the Colorado against the Paiute. They talked this over and all agreed. Then
the Walapai chief sent several men down here to us. The Walapai said, "Our
people want to cross the Colorado and kill the Paiute. Our chief wanted us to come
down to persuade some of you to go with us." The Havasupai agreed, and some went
with them. They went where the Walapai were already assembled. The Havasupai
big chief said to the Walapai, "The Paiute killed a lot of your people so you are
angry and want to fight them. That is all right."

Then the Walapai chief said, "We are all ready to go. We know the place to 501
climb down to the river." So all went down directly opposite the mountains 726
to the south side of the river. They got long logs and put cross pieces between them,
making a raft to put their beds, provisions and arrows on. A lot of them took hold of
it on all sides and pushed it before them as they swam. They unloaded it and pushed
it back to fetch those who could not swim. So they ferried all over. They camped 726
there on the north shore over night. In the morning they went up out of Grand Can-
yon. The old men pointed out the spot to me from this side and it looks like a good
place to climb out. When they got up on the plateau, they traveled straight toward
those mountains. They found a road a little way back from the rim. When they were
about halfway from the canyon to the mountain, they came upon a Paiute camp. Some
of the strong young men always traveled ahead; if they found nobody, they sent one

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[1] Lowie, (a), 194; Spier, (b), 465.

726 of their number back to tell the main party, who then moved forward. When they found this camp, one brought the news back and the party stopped. They waited for the sun to set, and when it was very dark, they moved close to the camp. They sent two or three young men to crawl right into the camp. They hid under a wood pile, where they spied on what the Paiute were doing.

They were all dancing. They had a pole as tall as a man set upright: this was a small tree with short branches. They had tied their bows and quivers together and hung them all on the branches and had the whole tied around with a rope; there was just one heap of weapons. They were dancing a little way from this. The boys returned and told the others. They said, "The Paiute are a little more numerous than we are. They are dancing; all their arrows are hung in one place apart from where they are dancing." The Walapai chief and the Havasupai chief both said, "All right. At dawn we will rush them. You strong young men should run fast and jump right into their midst and get those arrows. We others will break into the dance and catch and club the Paiute or shoot them." At daybreak, when they could see a little, all rushed into the camp, catching the enemy unawares, and clubbed and shot them. They killed a great many. Some of the Paiute young men, who were good runners, escaped and ran off to other places round about where there were many Paiute living, and told them.

Some of the Walapai and Havasupai said, "That is the way we like to do: kill a lot of them. But we think we had better go back right away." But the Havasupai and Walapai chiefs said, "No, we do not want to go back right away. We will stop here at this camp. You people cook; we are hungry. Then we will wait to see if there are any more. Some of the Paiute young men are good runners; perhaps they have told the others. We will wait here to see if they will come to fight. We do not want to go back at once." So they cooked, using the Paiute water baskets to carry water in. When they had finished cooking and were eating, a few Paiute came. Each party shot at the other. By and by more Paiute came, a few at a time, until they numbered a few more than the Walapai and Havasupai. Then the latter felt afraid. The two chiefs said, "We are afraid of the Paiute now; we had better turn back." So they traveled back, fighting as they went, just shooting. They did this all the way back to the rim of the Grand Canyon. Two of the Havasupai wore armor, double on the front, back, and on their arms, with small buckskins twisted up and muffled around the neck; and they held other skins twisted in their left hands to protect their faces. These two men walked in the rear of the party as a guard; arrows hung from their armor everywhere. They stopped right at the rim to fight a while. There was only a narrow trail leading down the cliff there; it was difficult to descend. The Paiute continued to gather until there were a great many. Then the Havasupai and Walapai dashed down the narrow place a few at a time until all were in it. There were cliffs on both sides of this defile through which they were descending on which the Paiute perched, rolling big rocks down on them and crushing a great many. Some of the Walapai went into a deep cave; others went on right down to the Colorado River. The two who had armor crossed. The good runners who got down to the river first, plunged right in, and swam across. Some of those who were wounded and weak were carried off by the stream and drowned. Nearly all the Walapai were killed. Those who had taken refuge in the cave were difficult to kill; so the Paiute dragged logs and green trees along the plateau and threw them down by the entrance,

where others pushed them into the cave. When the entrance was filled, they set fire 726
to the wood and suffocated all those inside: none escaped.[1]

TORTS.

If a man accidentally hurt another, he would give a present to 682
assuage his injured feelings and prevent retaliation. Neither husband nor [599]
wife was responsible to the other for injuries to their children. If a foreigner murdered a Havasupai, his relatives would immediately revenge 648
themselves on the murderer. In spite of their intimate relations with the 683
Walapai, *fracases* do occur; recently knives were drawn in a dispute over [628]
a horserace. If a Havasupai killed a Walapai, his relatives might pay a blanket, horse, or buckskin to prevent his being killed in retaliation. A chief would accompany them to the Walapai. Similarly, the Walapai would offer to pay if one of their number killed a Havasupai. When two 627
men quarrel, as when one sets upon his wife's lover, bystanders interfere before either comes to grief. A shaman is killed for his misdeeds (p. 280). 683

A theft by a Navaho is instanced wherein revenge is taken by killing 628
and despoiling an innocent member of that tribe (p. 367). Sinyella's 648
father received recompense (a blanket) from a Hopi who stole his Navaho 685
wife (p. 227).

COMPARATIVE NOTES

Data on residence after marriage are lacking for many tribes in this 171
area. Yet there seems to be some local differentiation. Matrilocal residence as the normal procedure holds for the Hopi, Zuñi, Sia, and undoubtedly other Pueblos. It is important to know how residence is 591
affected by male ownership of houses on the northern Rio Grande and [423]
by ownership by either sex in the middle Pueblo area. In Laguna at least there is both matrilocal and patrilocal residence. Dumarest indicates Cochiti as patrilocal, but Starr has it matrilocal. The Navaho may be matrilocal and the Kiowa certainly are.[2] Patrilocal residence occurs in the Southwest among the Pima, Papago, Yuma, Cahuilla, evidently the Western Apache and Northern Diegueño, and perhaps the Gabrielino.[3] Temporary matrilocal residence is found among the Havasupai, Apache (all other groups?), Mohave, Cocopa, Tepecano, Uintah Ute, Paviotso, Washo, Patwin, the Northern Maidu of the foothills, Northeastern Maidu, and occasionally among the Southern Diegueño and Wind River Shoshoni. The Northern Maidu of the Sac-

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[1] Compare the same procedure of the Paviotso (Hopkins, 73, 75).

[2] Kroeber, (j), 92; Stevenson, M. C., (a), 20; Parsons, (d), 170; Dumarest, 148; Starr, (a), 43; Lowie, 40; Curtis, I, 126-127; Mooney, (c), 233.

[3] Russell, (d), 184; Curtis, I, 133; II, 33, 66; Gifford, (a), 172, 186; Reid, 11.

171 ramento Valley are matrilocal, unless the couple are from different villages
591 when they reside only temporarily with the bride's people. Similarly the Achomawi and Atsugewi have both temporary and permanent matrilocal residence.[1] Whether the rule applies only to marriages within one village in all these cases is important, but the data are not available.

The levirate does not occur among the Havasupai, but is present in
171 this region. In addition, the Hopi, Zuñi, Yuma, Kamia, Akwa'ala,
587 Cupeño, and evidently the Luiseño do not practise it. It is, however, the regular custom of the Navaho, White Mountain Apache (by my own observation), Shivwits and Moapa Paiute, Paviotso, and according to Gifford, who lists the tribes, universal in California with the exceptions noted. It is also known from the Hasinai of eastern Texas.[2]

Hereditary chieftainship is exceptional in the Southwest. It is
171 true that in a Pueblo such as Zuñi there are no true chiefs, but the
624 officers who correspond, the governor and lieutenant-governor, occupy appointive positions. Members of the controlling priesthood are also selected, and at most there is only a tendency to inheritance in that the sib affiliation of certain officers is fixed. This also seems to be the situation in the eastern pueblos; it is specified at least for Sia and Cochiti. Pima chiefs are also selected.[3] Among the Hopi, however, town chieftainship is hereditary, according to Doctor Lowie. Chieftainship is also hereditary among the Havasupai and Jicarilla, with some suggestion among other Apache and the Navaho.[4] Further east, among Caddoan tribes, the Hasinai chiefs were hereditary, but not so the Taovayas and Wichita.[5]

It is quite possible so far as the Havasupai are concerned that this represents an extension into the Southwest of the hereditary basis prevalent throughout California. It is on record for the Mohave, possibly Cocopa, Gabrielino, Santa Barbara Chumash, Yokuts, Miwok, Patwin, Gallinomero, Pomo, Southern Maidu, Washo, probably Paviotso, Atsugewi, Achomawi, Chimariko, and possibly Shasta.[6] Clan chiefs,
[624] who in most instances amount to local group chiefs, hold hereditary

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[1] Goddard, (a), 1st ed., 162; Curtis, II, 89; Mason, J. A., (d), 153; Lowie, (h), 276-278; McKern, 288; Dixon, (a), 239-241; (c), 217; Spier, (a), 315; Cocopa and Washo information from Doctor R. H. Lowie.

[2] Kroeber, (l), 99; Hopi and Akwa'ala information from Doctor R. H. Lowie; Sparkman, 214; Franciscan Fathers, 422; Lowie, (l), 278; Gifford, (b), 239; Bolton.

[3] Stevenson, M. C., (a), 162; Dumarest, [illegible]; Russell, (d), 196.

[4] [illegible], (c), 202-203; Curtis, XII, 221; I, 55; Goddard, (a), 1st ed., 103; Lipps, 35; Franciscan Fathers, 423.

[5] Bolton.

[6] Kroeber, (a), 278; Gifford, (a), 165; according to Doctor Lowie's information, the Cocopa have hereditary chiefs; Reid, 7; Mason, J. A., (a), 173, (but the Salinan chief is "selected because of his bravery"); Powers, 174, 248, 332, 371; McKern, 242; Dixon, (a), 223; Faye, 42; Barrett, (b), 9; Lowie, (l), 292-293; Dixon, (c), 215; (d), 291.

office among several southern tribes: Cahuilla, Serrano, Cupeño, Southern and Northern Diegueño, and Luiseño. The last two at least also have village chiefs who do not inherit their positions, but Gifford's belief is that these functionaries are of modern origin.[1] Kroeber writes, 171 624 [614]

> In general it seems that chieftainship was more definitely hereditary in the southern half or two-thirds of the state than in the north central area.[2]

In northwest California (Hupa, Chilula, Yurok, Tolowa) leadership is based on wealth but since this is inherited there is practically the same situation as elsewhere. Much further north the Wishram and Wasco have hereditary chiefs, and from this point northward there is an hereditary class almost everywhere.[3]

Non-hereditary chiefs may be the general rule in the Basin and eastward; at least they are recorded for the Northern Maidu, Klamath, Shivwits Paiute, Lemhi and Wind River Shoshoni, Nez Percé, and Kiowa.[4]

Inheritance of chieftainship as in the Havasupai case does not argue any special authority. Kroeber interprets the Californian data as meaning

> that the authority of the chief was considerable everywhere as far north as the Miwok, and by no means negligible beyond.[5]

But this certainly does not apply to the Havasupai and some of their neighbors (Tointesa" and Shivwits Paiute, Southern Diegueño, Cocopa). Here the function of the chief seems purely advisory, and the stereotyped form this takes among the Havasupai has an even more specialized appearance among the Tointesa", Navaho, White Mountain Apache, and Cocopa,[6] where the chief begins the day with a shouted announcement of what the people are to do or other general admonitions. There is a possible connection of this crying through the camp with the Pueblo crier's function.

The word-for-word repetition of formal speeches is the custom of groups north of the Havasupai. The Paviotso appoint an individual to repeat the speeches at a council and Mooney observed that these were repeated verbatim after each sentence. Lowie also noted that a story-teller expects his listeners to repeat each paragraph of his tale.[7] Powell's account also suggests a similar functionary when a Kaibab chief tells a 171 537

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[1] Gifford, (a), 168, 173, 174, 181, 187, 193, 202, 208, 213; Spier, (e), 209; Sparkman, 215.
[2] Kroeber, (o), 285.
[3] Goddard, (a), 58; (d), 271; Powers, 45, 66; *Handbook of American Indians*, II, 918.
[4] Lowie, (a), 209; Spinden, 242; Mooney, (e), 233.
[5] Kroeber, (o), 288.
[6] Lowie, (l), 284; field notes on the Cocopa. I add the Navaho and Apache from a somewhat hazy recollection of what I heard among them.
[7] Hopkins, 54; Mooney, (b), 770; Lowie, (l), 209.

171 537 story.[1] It is possible that this is what Powers means by calling the Northern Maidu clown (Sacramento valley and foothill groups) a "prompter or repeater of the chief.[2]" He reports for the Southern Maidu a boy who repeats very utterance of a shaman during his performance[3] and the same occurs among the Klamath. Of the Nez Percé Spinden remarks that

> often a public speaker, or herald, repeated word for word the orations of the chiefs in order that the assembled multitude might hear,[4]

and of another Sahaptin group at Priest Rapids on the Columbia River, Mooney records that speakers talked in a low voice to an "interpreter" who repeated to the audience.[5] The last is also true of the Wishram.

171 726 Like the Havasupai the Pima warriors

> divided into two parties—those who used the bow and those who fought with club and shield.[6]

It would be interesting to know whether this specialization was general in this area.

171 411 At least one type of Southwestern club has a recognizable distribution. This is a cylindrical affair, having a handle of smaller diameter in the line of its axis (Kroeber's "potato-masher" type). It is used with a punching, face-smashing stroke. This seems to be typical of the lower Colorado: Mohave, Chemehuevi, Cahuilla, some Mission Indians, Yuma, Cocopa, Opata, Maricopa, Pima, and Yavapai.[7] Kroeber, however, describes this as the Pueblo type of warclub.[8] The Havasupai ball-headed club is shared with the Cocopa. This is not the well-known type, a ball and handle joined by a rawhide cover, which in this area is used by the Western Apache and Wind River Shoshoni.[9] The Southern Diegueño weapons are a flat curved club and an angular hook.[10]

There is some doubt that the sling is aboriginal in the Southwest, but as the object is widely distributed in Mexico, Central America, and the northern parts of South America, it is possible that it is ancient in the Southwest.[11] It is also found northward through California. The tribes for whom it is recorded are Navaho, Hopi, Western Apache, Havasupai,

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[1] Powell, 116, 128.

[2] Powers, 310; Dixon, (a), 266, 318.

[3] Powers, 331; Faye (p. 43) notes a partner or deputy of the captain who speaks in public. This seems to correspond to the chief's assistant of more southerly Californian tribes.

[4] Spinden, 242.

[5] Mooney, (b), 729.

[6] Russell, (d), 120, 202.

[7] Whipple, Ewbank, and Turner, 50; Barrows, 50; Hoffman, in Reid, 29; Trippel, 577; Heintzelman, 43; Russell, (d), 96; cf. Bartlett, II, 237; Corbusier, 331.

[8] Kroeber, (a), 288.

[9] Bourke, (b), 89; Lowie, (l), 246.

[10] Spier, (e), 344.

[11] Mason; cf. Hough, in *Handbook of American Indians*, II, 602.

[Text continues on p 258]

102
171
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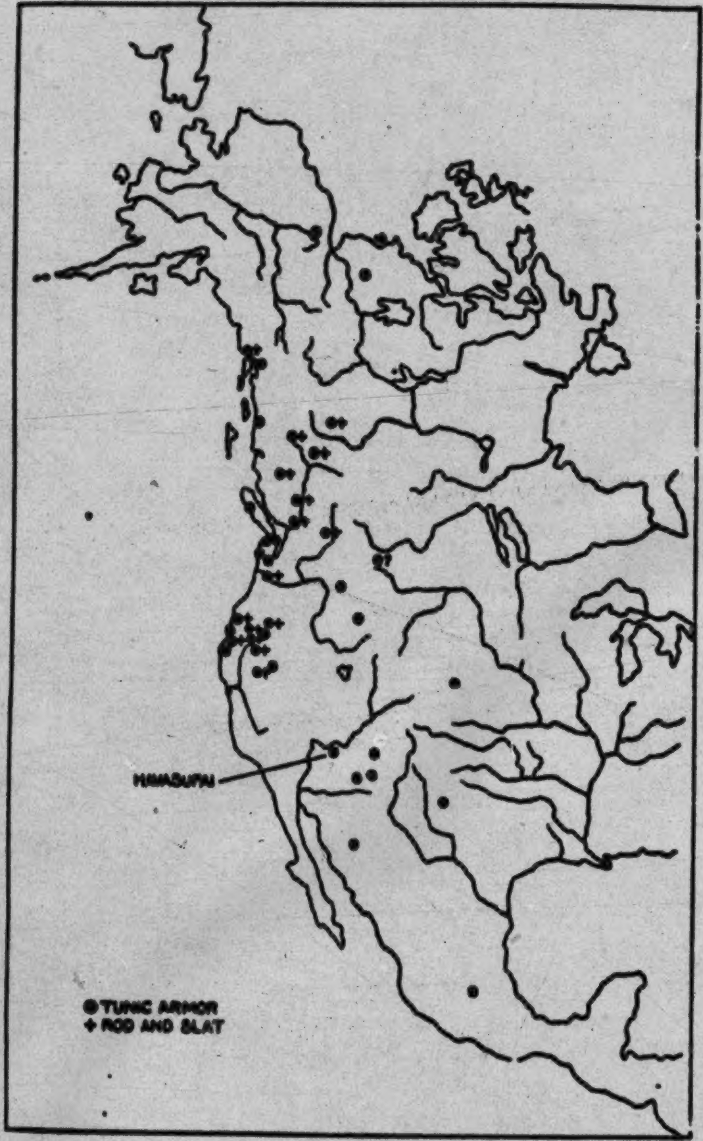
HAVASUPAI
● TUNIC ARMOR
+ ROD AND SLAT

Fig. 51. Distribution of Tunic, Rod, and Slat Armor in North America.

171 Pima, Luiseño, Clear Lake Pomo, Trinity Wintun, Puget Sound Salish,
411 and on southwestern Vancouver Island.[1]

It is well known that armor is used in a wide area of western North
171 America from Bering Straits into the southern continent. The only
713 variety we are concerned with here is a tunic formed of several thicknesses of heavy skin, commonly joined and stiffened by layers of glue and sand. Something of the sort is in use among Havasupai, Navaho, Western (?) Apache, Zuñi, Opata, Aztec, Comanche, Pawnee, Paviotso, Maidu, Atsugewi, Achomawi, Hupa, Yurok, Wailaki, Shasta, Modoc, Klamath, Takelma, Northern Shoshoni, Nez Percé, Chinook, Quinault, Twana, Chimakum, Klallam, Shuswap, Lillooet, Thompson, Nootka, Chilcotin, Carrier, Babine, Sekanai, Loucheux, Hare, Nass, Taku, Chilcat and other Tlingit, and undoubtedly others.[2] The Blackfoot have a tradition of its use. The Pima evidently do not use armor.[3] To the south quilted cotton armor was used by Mexicans, Toltecs, Mayas, Isthmians, and Peruvians, according to Hough. Slat and rod armor reach no farther south than the Maidu: north from this point these types are used by Achomawi, Atsugewi, Shasta, Klamath, Hupa, Takelma, Chinook, Shuswap, Lillooet, Thompson, Chilcotin, Carrier, Babine, Sekanai, and Tlingit.[4]

So far as the information goes the curtain shield is used in the South-
171 west by the Havasupai, Walapai, and Yavapai only. The Thompson
411 use a large piece of stiff elkhide and the Lillooet roll marmot skins thickly around the left arm. The circular shield used in the Plains and Mexico extends into the Southwest among Comanche, Zuñi, Hopi, Navaho, Western Apache, and Pima. Kroeber adds Yuma, Mohave, and Diegueño to this list.[5] In the Basin-Plateau it is known to the Ute, Wind River and Northern Shoshoni, Nez Percé, Shuswap, and Thompson.[6]

The poisoning of arrows may have been more common than the
171 collected data indicate; at any rate it is a widespread custom. One
276 poison of a curious sort suggests that some cases at least are historically
411 connected. This is made of a liver which a rattlesnake has been made to

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[1] Franciscan Fathers, 75, 325; Pattie, 120; Bourke, (b), 50; Sparkman, 203; Powers, 215, 241; Eells, 632; Meares, 176.

[2] Franciscan Fathers, 458; Hough, (b), 628, 631, 642, 645, 646, Pl. 16, 17; Russell, (c), 78; Winship, 548; Bandelier, (a), 70; Lowie, (i), 245; Dixon, (a), 205; (c), 213; Mason, O. T., (a), 230; Kroeber, (o), 299; Gatschet, (b), 88; Lowie, (a), 192; Lewis and Clark, III, 21; Franchère, 253; Quinault information from Mr. Ronald L. Olson; Gibbs, 192; Spinden, 227; Eells, 633; Teit, (c), 338, 785; (b), 234; (a), 265; Meares, 254; Morice, (c), 217; (b), 140, 149; Krause, 200; Sapir, (a), 273; (b), 157, 255.

[3] Wissler, (a), 163; Russell, (d), 29.

[4] Hough, (b), 631, 640, Pl. 14; Farrand, (a), 647; Sapir, (a), 272.

[5] Kroeber, (o), 299.

[6] Lowie, (i), 242; Lewis and Clark, III, 10. I have not attempted to complete its distribution to the northwest.

strike (White Mountain Apache, Seri, Northern Maidu[1]), or part of a deer struck by a snake (Shoshoni and Bannock), or a mixture of liver and venom (Paviotso, Teton), liver and the juice of the wild parsnip (Achomawi), the spleen of an animal and pulverized ants (Northern Shoshoni[2]). In several of these cases this is allowed to putrefy: the Yuma also used putrid flesh. Others prepare compounds of poisonous insects and plants (Havasupai, Yavapai,[3] and Wishram[4]). Rattlesnake venom is used by the Southern Diegueño, Blackfoot, Lillooet, and Thompson; rattlesnake blood by the Takelma.[5] In addition to these the Jovas, Opata (and the tribes of Sonora generally), Lipan, Navaho, Cahuilla, the Indians of the vicinity of Santa Barbara, Gosiute,[6] and Snohomish are known to have used poisons. 171 278 411

Scalp taking is general in the Southwest, although it seems everywhere a matter of little concern. It is specifically attributed to Havasupai, Yavapai,[7] Tonto and Pinal Apache, Navaho, Zuñi, Mohave, Yuma, Cocopa, Maricopa, Papago, and Opata.[8] In the Basin we may add the Paiute, Uintah (?) Ute, Wind River and Lemhi Shoshoni, and possibly Paviotso.[9] Kroeber states that scalps were taken in the greater part of California, possibly excepting the Yokuts, Valley Maidu, and Pomo, and surely excepting the tribes of the northwestern area. Powers also excepts the Trinity Wintun although ascribing the practice to other Wintun. I have found records for one of the Mission groups, Salinan, and the Maidu of the mountains.[10] 171 727

Removing the entire scalp in the Havasupai manner, not a small patch, is attributed to the Yavapai. This, according to Kroeber, is the general Californian practice, and, by my own information, that of the Klamath and Wishram further north.

The Havasupai do not take the whole head although it might have been expected. This is common in California (specifically Salinan and Patwin), in the Northwest area, and in Mexico it is noted for the Tepehuane.[11] Friederici believes that scalping is a substitute for head taking stimulated by the whites.[12]

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[1] Dorsey, G. A., (b), 186; Bourke, (b), 58; Bartlett, I, 465; McGee, 250-258; Bandelier, (a), 70, 287; Dixon, (a), 205, 332.

[2] Hoffman, 67-71; Lowie, (j), 245; (a), 185, 192.

[3] Trippel, 576; Corbusier, 332.

[4] Information from Dr. W. D. Strong.

[5] Spier, (e), 353; Teit, (b), 235; (a), 263; Sapir, (a), 273.

[6] Bandelier, (a), 70; Franciscan Fathers, 166; Hooper, 355; Yates, 374; Chamberlin, 308, 384.

[7] According to the Havasupai, although Corbusier (331) denies this.

[8] Smart, 419; Bourke, (d), 26; Franciscan Fathers, 308, 428; Pattie, 132, 139, 165, 199; Parsons, (f), 12; Kroeber, (a), 281; Bartlett, II, 221; Gaillard, 295; Bandelier, (a), 153, 242.

[9] Lowie, (f), 320, 333; (a), 193; (h), 242, 245; Powers, 320.

[10] Kroeber, (o), 297; Powers, 238, 241, 321; Boscana, in Robinson, 306; Mason, J. A., (a), 180; Dixon, (a), 206.

[11] Powers, 221; Bandelier, (a), 95.

[12] Friederici.

A scalp dance is also common in this area. Details are lacking, but
171 we can note the distribution of at least one feature. Kroeber observes
727 that in California (e.g., Maidu, Wintun, and a Mission group), it is usual
535 to hang the scalp on a pole about which the dancers move. This is also the case in the Southwest (Havasupai, Navaho,[1] Zuñi, Papago, Opata), in the Basin (Paiute, according to the Havasupai; Uintah, and Lemhi Shoshoni), and in the Plains at least among Pawnee and Omaha.[2] On the other hand, in the northern Plains the scalp is hung from a stick in the hands of the dancers (Blackfoot, Crow, Wind River Shoshoni, Cheyenne,[3] and to the northwest the Klamath and Wishram), which appears in the Southwest only as one of the Navaho practices. Both usages have a wide distribution.

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[1] Guernsey, 206; Pattie, 168.
[2] Pattie, 44; Fletcher and La Flesche, 432.
[3] Wissler, (b), 453; Lowie, (c), 226; Grinnell, (a), 305-310.

DANCES

Annual Dance

The one general dance (*yimága*) of the year is hardly to be classed as 527
religious, for it serves a social end, yet it is also a means of obtaining 535
rain and prosperity. Certainly the pleasure element is uppermost for the
majority of those attending. It is performed at the end of August or the [789]
beginning of September, when the harvest is gathered. At this time [241]
Navaho, Hopi, and Walapai visitors come to share the abundance [648]
and to trade, the several days of festivities furnishing the principal
diversion of the year. In 1918 a somewhat impromptu affair was given
on August eighteenth and a more extended dance in the middle of
September lasting two days and nights; in 1919, the dance was held
September twelfth to fifteenth occupying three nights and the intervening days.

The dance of August 1918, although held by day, was typical, save
in one respect, namely, that most of the active men and women were
absent in attendance on a mourning ceremony given by the Walapai. [648]
The dance ground, a disputed tract in the middle of the village, was
voluntarily cleared by some boys, who piled the brush about the edges;
this was the only approach to an enclosure. People began to arrive in the 527
early afternoon, the men congregating apart from their families. Curi- 571
ously enough, although the women sat together they formed three slightly 621
separated groups; those from camps 7–18 (see map, Fig. 50) were at the
southern end, camps 44–53 at the north, with the families from the
middle section of the village between. Clearly this was not only an
expression of the relationships prevailing between neighbors, but also
of a degree of cohesion among neighbors as such. The older men smoked;
the younger played games of chance; the women, when not engaged in [525]
preparing food for the subsequent feast, prepared basketry material. By
midafternoon the entire village, with the exception of a few old women
attending the sick, had arrived. Sinyella thereupon directed that a [574]
space be cleared to receive the food, arranged part of it that the men
might eat, and distributed the remainder among the groups of women
and children. At its conclusion, Sinyella and Manakadja, the only [537]
chiefs present, rose from their places before the men and addressed a [183]
moral discourse to the women and children, stating as well, that although
the dance had not been given for several years, on this occasion it should
be resumed in its old form. At this time, the heat of the day abating, [535]
the dance commenced.

Sinyella took up a position beside Rock Jones, a shaman who
527 535 carried the drum, facing a pole set up at the center of the dance ground.
Here they sang. Rock Jones wore a fox or coyote skin pendent from the
[301] back of his belt; a mask-like band of brown paint was drawn across his
[302] eyes. Others hesitated to join, until one old woman, bursting into an
exhortation to dance, set an example. The circle of dancers, men and
women interspersed (*djikadjI'kiga*, dove-tailed), stood shoulder to
shoulder holding hands, with the drummer usually within the circle.
In joining hands the backs are in contact and the fingers dove-tailed.
[533] The dancers stood while singing the phrase several times, until all had
caught the rhythm; then they began moving slowly in a sinistral circuit
with a short, sidewise shuffling step. The legs were held nearly straight,
though a slight swaying movement was given to the trunk; there was no
stamping or accentuation of steps. Drumming consisted of single thumps
[533] marking each step, without any preliminary or concluding beats. The
dancing continued for several minutes, until the circle had returned to its
initial position for the third or fourth time. While they stood for some
minutes the composition of the group changed. During such intervals
the two chiefs and Rock Jones, the shaman, harangued the crowd, which
was not particularly attentive. Four hours passed before the dancing
became spirited and nearly continuous, when the greatest number of
dancers, twenty-seven, were engaged. Only about a third of those
present danced; the non-dancers were chiefly the oldest women, young
children, and some middle-aged men. Children of eight or nine took
part, and even several persons with physical infirmities were encouraged
to dance and shown marked consideration. The older women at least
knew the dance songs as well as the men.

During the dance a grotesquely masked lad (*gidjI'na*) dashed into
the group, scattering the children. His function is to frighten non-
participants into dancing. He beckons them to enter with the switches he
carries; if they fail to heed he drags or scourges them into the circle.
On this occasion he used the switches on children and dogs, went through
a pantomine of shooting them with a gun, and pretended fear of them,
all in a clownish manner. His trunk was painted with black and white
[302] horizontal stripes; he wore short black trousers with torn, flapping legs,
and a white cloth mask. This was a bag drawn in about the neck, having
short sticks to which down was attached fixed like horns in the upper
corners. Round eye and mouth holes were cut and marked on the face.
In each hand he carried a willow branch.

The dance broke up at nightfall, families leaving without formality.
The drum was abandoned on the dance ground. Nearly every adult and

many children had participated at least in some slight degree, such as 527
gathering firewood, cooking or distributing food, etc. There was some 535
philandering, young children got out of hand at times, but little ill-feeling was shown at any time.

Preparations for the dance of September twelfth to fifteenth, 1919, began two weeks before with singing practice. On one such night about thirty young men with a few of their elders gathered at the dance ground as the moon rose. After some discussion, they commenced singing. The old men sat close about a fire, while twenty [533]
younger stood in a circle about them. Supai Jack, the best singer, sang first, the others joining. The occasion was one for considerable chaffing. Sinyella called out admonitions, which were taken seriously, while they sang. The auditors repeated [648]
"*hánig*^{ia}, good" after each song was tried. Two Navaho who had arrived to announce [526]
the coming of their tribesmen were present. Lads practised wrestling

Early in the morning of September fifth, Panamida, a chief, bellowed a summons to clear the dance ground, which volunteers complied with before noon.

On the afternoon of the first day families began to arrive at the dance ground at 3:30; all the men were present by 5, but many women did not attend this day.
Women cooked; boys ran some horseraces (which, like the discontinued footraces, [526]
were to a distant point and back). The remaining food was spread in long rows on a layer of willow branches by Sinyella and another. Men ate here at sundown; later
food was set out for the women by Sinyella. The nine Navaho men present, who held [648]
themselves aloof, were first served by their many friends. Three chiefs, Manakadja,
Sinyella, and Captain Jim, and the shaman, Rock Jones, harangued the seated crowd [537]
from time to time. The dancing continued from 8:30 until midnight. Hesitation in 527
starting the dance was again noted. The drummer and song leader stood throughout 535
at the center of the circle. These two would sing the phrase once while the performers
stood in their places, then all joined; when they were singing in unison; the drummer [533]
gave the signal to dance. Forty to fifty men and girls formed the group which circled about three times per song, stopping in their initial positions. The girls were slow in joining, until urged by the head chief's old wife. Women forced their way in beside the Navaho, who, with some Havasupai men, paid their partners (the women on the right), with small coins for each dance. Several men went about to preserve order.
Some of the women had weeds hung from the back of their belts, similar to one hung [301]
on me when I joined the dance of the previous year.

The Indians had gathered, dressed in gala garb, by 5 p.m. on the second day, and feasted at sundown. The head chief erected a pole at the center of the dance ground.
At 8 p.m. twenty dancers, formed in two lines, one of men, the other of women, per- [177]
formed the Mohave dance (see p. 267). The head chief addressed the audience about
9, after which the dancing began. The average number of dancers was fifty, including
a larger proportion of women than on the preceding night. The distinctly old people [624]
did not dance. Speeches were made at intervals by the chiefs, Big Jim and Sinyella. [537]
Such talks were a half hour in length.

About midnight a masked boy ran out of the bushes to urge and whip the laggards. He wore a white mask with eye and mouth holes, short black trousers, cottonwood branches were tied around his neck and biceps, and he carried a cottonwood branch
in each hand. His arms and legs were painted white, with white stripes diagonally [302]
crossing his breast and back. They danced until 1 a.m.

527 535 [439] The third day was occupied with horseracing and trading with five Hopi men who now arrived. The dance was given at night continuing until dawn. It was begun by Navaho and Hopi who sang their own songs.

[349] According to informants it is usual to provide two semicircular shades of branches set upright in the ground for the women to cook under.

534 The drum (*gwešilkómid*) is slung under the left arm. It is a section of a hollow cottonwood log; one specimen (50.2–1632A) is 43 cm. high and 30 cm. in diameter, with hide ends laced together. The drumstick (*gwešilkómidi'i*) is of the looped type. In one specimen (50.2–1632B) a willow handle, 25 cm. long, terminates in a double loop of 11 cm. diameter, which is bound with cloth, the whole being painted red. Formerly, a skin was fastened over the mouth of a clay vessel containing a little water. Turning the pot over wet the skin and caused it to shrink taut. This was carried in the dance slung under the left arm. They do not drum on baskets.

624 537 The speeches delivered by chiefs are in part prayers. Sinyella prayed to the ground, the rocks, and the creek as follows:—

782 539

inyámátvI	**má'éváhag'I'I**	**dúyIIniyúdjIk**
my ground	ground, hear me	let us always live

áhánIgwayóhag'I'I	**ma'éváhag'I'I**
I want always to live well	ground, hear me.

624 527 535 [171] The position of dance director is informally filled by any of the chiefs: it is not, as among the Mohave, the prerogative of an individual. In fact, the term *kahá'i* (the equivalent of the Mohave dance leader, *kohota*) is applied only to a big chief. Nevertheless, there is a tendency for one man to assume and retain the initiative in this affair. But this has probably no greater significance than the direction over the horseracing assume by Panamida at present. According to Sinyella, his father's two older brothers (the eldest of whom was a chief) were directors, who passed their function to him when they died, but it is doubtful that this function was as formal as his statement would imply.

533 The song leader's position is equally informal. The present leader, Supai Jack, is universally recognized as the best singer, with the most perfect memory and fertility in inventing songs.[1] Many of the songs now sung were invented by his predecessor, Teyadjává (corn thief), a chief, to whom he was unrelated. Teyadjává dreamed he was dancing and singing the following song:-[2]

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[1] About 1900 James saw a Chemehuevi, who may have been a ghost dance advocate, acting as a song leader, (b), 233.

[171] [2] The airs of these songs do not resemble most of those of the Zuñi, nor according to the Havasupai, those of the Hopi: on the other hand, they have something in common with the Mohave songs they sing and also with those of the Southern Diegueño which I have heard.

iniyŏ'kȧ ne he he ha iniyŏ'kȧ ne' e' e 533
he remains still
539
iniyŏ'kȧ ne he he ha iniyŏ'kȧ ne' e' e
yovȧŋówa ste'e'e Iŋyówȧ ste'e'e

He dreamed he was in another country, where a cooling wind blew and girls in a little circle danced:—

mátwiyúcwasínowé'e
A fresh wind in that land

hmátwiyúcwasínowé'e
másidjáhaiyanyowé'e
girls circle around

másidjáhaiyanyowé'e
mátvȧdjímaʻwévowé'e

He dreamed he went to a strange land, where men continually danced while singing this song:—

wiyámŏ^{k} wiyámodjaíyĕ^{k}
go away somewhere hungry

wiyámĕ^{k} wiyámodjai'yĕ^{k}
wiyámodjī^{k} wiyamodjíoma'anŏ
wiyámodjī^{k} wiyamodjíoma'anŏ

The same man also composed the two songs which follow:—

sí'iwi sí'iwi'i'i

sa'ȧdjúdja djīgánamé hīdjánwiyĕ'mȧwámūmé'e
girls alongside circle around
sa'ȧdjúdja djīgánamé hīdjánwiyĕ'mȧwámūmé'e

n̦adjáwi'i hín̦adjáwu'i hín̦adjáwi'in
I do it
hīmulá'adja hagan̦an̦owī
I am the man who names (himself ?)
hídjan̦aŋa haviyīn̦ówĕ
girls stand alongside

The following song, typical of a class, is thought to be of Navaho origin:

ya'o'o'o
neya'o'o'o (repeat four times) neya'o'áŋwé
'Ineyŏŋ
neya'o'o'o (repeat twice) neya'o'áŋwé
'Inĕyoŋȧ heówīnȧ heówe

533 Another individual, who knows songs well, also composes them; one he
made just before the 1919 dance was not adopted because it was not
considered pleasing. The song leader customarily carries the drum.

In the middle of the last century it was customary to hold this dance
527 during two nights. It was also danced in the daytime in the same form,
535 except that at midday two women, who carried eagle tail feathers in
each hand, stamped about inside the circle, waving their fans up and
down with a pumping motion.

At that time men sometimes wore a fox or coyote skin pendent from
[301] the back of the belt similar to that worn by Rock Jones in the 1918 dance.
The weeds similarly worn by women in the dance of the next year were
"just in fun."

There can be no question that this dance antedates both the Cali-
177 fornia ghost dance of 1870–72 and the revival of 1889, although the
535 latter as it appeared among the Plains tribes is clearly the same dance.[1]
769 The particular form in which the ghost dance of 1889 took root among the
Havasupai has been described by a Hopi visitor who saw it in July, 1891.[2]
After a general head washing, the dance was given, as described above,
for four days. Two eagle tail feathers had been tied to the top of the
central pole, to which a man would climb, clinging until exhausted, when
he would slide insensible to the foot of the pole. On being revived by the
shamans he described his visit to the dead who were soon to return. The
occasion is well remembered by my informant. It was practised only
one year, being discontinued because they did not like it. All the men
who climbed the pole died soon after. At that time they heard of a
177 Paiute shaman, named Panámántá (Panamint?), living near St. George,
769 Utah, who preached the doctrine that the dead, who had instructed him
775 to so inform the people, were to return to life. A delegation went with
the Walapai to be instructed; two of them are still living. The Havasupai
accepted this doctrine and still believe it according to Sinyella. Mana-
kadja said that the Paiute gave resurrection as the reason for burial in
place of cremation, but they lied, for the dead did not return. Possibly,
the occasion of the women falling into a trance within the dance circle,
seen by James about 1900, represents a recrudescence of the ghost dance.[3]

MASKED DANCE

A performance of masked dancers (*gidjĭ'nd*, both dance and partici-
535 pant) was discontinued twenty years ago. Anyone could inaugurate the
dance, which was open to all men. It was given for good fortune, rain,

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[1] Mooney, (b), 930, 931.
[2] *Ibid*, 811, 812.
[3] James, (b), 236.

and to make crops grow. Six, ten, or more men prepare within a house. 595 The leader, stationed before the door, demands "Are you ready?", whereupon they proceed to the dance ground following the leader in single file. Each second man steps to the left of his predecessor in line, forming a file of twos. The leader and his partner face about and dance twice between the files and back, then to the bottom of the files where they take up positions (much like a Virginia reel). The next couple, now at the head of the files, repeats this performance, taking stations below the first couple, and so on, as long as desired. They return to the house in couple formation, singing the while, but stopping before they enter.

The mask is a sack with eagle feathers tipped with eagle down fastened to the upper edge. 532 535 Eye and mouth holes are cut; the nose is painted on the mask. A leather tube, 10 cm. long, is sewed into the mouth hole; its outer end is deeply notched, so that it resembles a bird's bill. Designs are painted on the masks to "look pretty or to make people laugh" (Fig. 52). Some masks have chicken hawk or owl feathers tied to the upper corners and vertical wavy lines in red and black painted on the face (Fig. 52b). Another has a single eagle plume tipped with eagle down, with the painted design shown in Fig. 52c. Another is covered with down to simulate hair. The body of the dancer is painted white. Horsehair (never one's own hair) is arranged to fall to the middle of the back below these masks; horizontal bands are marked with white paint across the hair. Green branches of cottonwood or willow are carried in each hand. These are shaken as they dance.

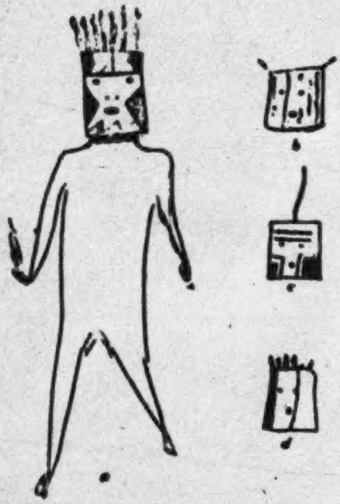

Fig. 52. A Masked Dancer and Masks. After a native drawing.

MOHAVE DANCE

The Mohave dance, which is said to have been borrowed from a 177 535 Walapai mourning ceremony, has not been fully adopted by the Havasupai. The older people object to it because of the sentiment of the

177 535 [533] songs, the references to the dead. Two opposing lines, one of men and the other of women are formed, stationed a meter and a half apart.[1] The song leader, carrying a rattle, stands in the center of the men's line. All stand singing for a short time, then when all are in unison, the men walk forward three meters, the women retreating before them; then the men walking backward with the women following, they return to their original positions, and so on. The steps are usually short, with the body upright, but there is some variation and at times the dancers are bent over. In one form both lines face about after a few steps and proceed in the same direction, but now the men walk backward instead of forward as they started, the women are reversed, and the lines are back to back. The song ends with ha' ha' ha' ha, while the rattling is rapidly continued for a short time after the song ends.

177 535 765 [648] The Walapai ceremony from which this dance is copied may occur at any time.[2] It may be inaugurated by anyone who (informally?) asks the consent of the chiefs. It is held in mourning for the recently deceased, as in July, 1919 for those who had died of influenza during the preceding winter. In September of the same year a prominent Walapai sent invitations to the Havasupai, among others, to join in mourning for his oldest brother, nephew, and several other relatives. The day of the ceremony is given over to gaming and horseracing. A large shade is erected and enclosed with sheeting, ribbons, and bunting. Within this the chiefs harangue through an entire night, while the people weep. The dance described above is held outside. Eight to fifteen songs are thus sung; then all stop to rest and mourn. During these intervals the inaugurator of the dance and the chiefs address the crowd. In the morning the shade is tumbled down, the sheeting, etc., together with new clothing, is thrown on the pile, and the whole burned. All then leave the locality with the exception of the inaugurator who remains to watch the fire. The Havasupai who attend do not mourn for their own dead but for the Walapai. [648]

177 535 [533] In view of this opposition, it is interesting to note how this dance takes root. Singing practice is a common evening pastime of the younger men. For instance, on one occasion twenty men, ranging in age from fifteen to thirty-five, danced to the Mohave songs from a few hours after sundown until just before dawn. Foster, who knew the songs and steps best, carried the rattle. The procedure followed that of the regular dance, but it was evident that the song was being learned before it was tried with the step. The only older man present was Kaθhdà, who had invited the men to dance in his field and openly encouraged them. His sole position in the Havasupai world is due to his being a mild-mannered friend of everyone. The Mohave dance was given in the yearly dance as described above at the behest of the aggressive Captain Jim, who

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[1] I do not know whether partners are chosen. My notes also do not specify, but as I recall, they did not join hands.

[2] Annually, according to Curtis, II, 92.

fetched a rattle that it might begin. While nobody objected to its per- 177
formance, it apparently was not considered in order for it soon stopped. 535

It would be valuable to learn just what knowledge of foreign dances
and ceremonies the Havasupai have. Naturally they have seen those of 177
all the neighboring tribes, and certain elements, such as the masked 535
figure in the yearly dance, are demonstrably introduced. But according 648
to Manakadja, while they look on at Hopi dances, they do not participate. Further, while they once tried to imitate them, they stopped because "they did not know much." Navaho as well as Yavapai shamans [756]
have been called in for the sick. I do not know whether the Havasupai participate in the social dances of the Hopi and Navaho, but it seems likely. They take part in Walapai ceremonies and dances on a par with members of that tribe and Paiute dances have been participated in, because, it is said, they are similar to those of the Havasupai.

The toloache ceremony of southern California tribes is unknown. 171
The green leaves of the jimpson weed (*smalgátú'*) are eaten, however. 276
This makes them crazy; they crawl around, shout, and laugh inordinately. They dream of being in crowds who play and dance. Jess said that he hoed down corn, thinking the plants weeds, while under its influence. The old people warn the youths against using the drug. Leaves may be taken from any part of the plant.

COMPARATIVE NOTES

The almost complete lack of group ceremonials sets the Havasupai 171
apart from the Pueblos and the rancheria peoples to the east and south. 796
Both the round dance and the Mohave dance are Great Basin practices.
The masked dance is the sole point of resemblance to the typical 535
Southwestern tribes.

The round dance is common to most, if not all, the Basin tribes. 171
As part of the Ghost dance movement of 1890 it made its way into the 535
Plains as well, while the earlier movement of 1870 had brought the dance [177]
into northern California and to the Yokuts from the Mono.[1] The dance as a unit (a circle of both sexes, interlocking fingers, sidewise step) is known[2] to the Havasupai, Walapai, Moapa, Shivwits,[3] Uinkaret (?)[4] and Kaibab Paiute,[5] Pyramid Lake Paviotso,[6] Washo[7], Klamath, Gosiute,[8]

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[1] Kroeber, (e); Powers, 43, 381, 397 (confirmed by A. H. Gayton).
[2] My search of the literature is by no means exhaustive.
[3] *Ghost-Dance in Arizona*, 66; Lowie, (i), 302.
[4] About 1860 according to a Havasupai informant.
[5] Seen in 1872 by Dellenbaugh, 178.
[6] Lowie, (i), 306.
[7] Girls' puberty dance (information from Doctor R. H. Lowie, 1926).
[8] Reagan, 40.

171 535 Uintah Ute, to the Wind River,[1] Fort Hall and Lemhi Shoshoni,[2] Crow,[3] and probably the Yakima, but not the Wishram. The Crow Owl dance differs in that the performers have their arms about each others' waists; the Uintah Squaw dance in that men and women are not interspersed and the step is different. The Pima also have a dance which may be related.[4] In this the dancers stand in a circle with arms across their neighbors' shoulders, stamping their feet and bending their bodies.

Several of the details have parallels among other tribes. The central pole is recorded from the Kaibab, in the Wind River *Naroya* dance, and in the Ghost dances[5] among the Karok, Klamath, and the Plains tribes. Its use in the Ghost dance when men climbed to the feathers tied at the top suggests the *Notish* mourning ceremony of the northern neighbors of the Luiseño, where rivalry is shown in climbing a painted pole to which crow feathers and baskets are attached.[6] But there is a more suggestive relation in the tale of the Gabrielino which describes a visit to the land of the dead by a man who in a test is made to climb a tall pole to bring down a feather tied to the top.[7] At Taos clowns climb a pole for food, but I do not know that there is here any association with the dead.[8] The very characteristic way in which the dancers stand singing softly, then circle about to stand again, between songs, has been noted for the Gosiute by Reagan, the Kaibab, the Walapai, and in the Ghost dance by Mooney.[9] Lowie has also observed the curious reluctance of the Lemhi dancers to begin, and the whipping of Crow Owl dancers and those of the Moapa and Southern Ute who are slow to join the Bear dance.[10] The dropping out of women partners from the circle between dances is the custom in the Lemhi *Nuakin* and the Gosiute round dance. They are paid by the men and sometimes reciprocate in the Cree dance of the Lemhi and presumably the Fort Hall Shoshoni, in the Wind River Women's dance,[11] and in the Navaho war dance.[12] The foxskin worn [301] pendent from the back of the shaman's belt in the 1918 dance has its analog in the costume of the masked dancers among the Pueblos, as at Zuñi, and among the Navaho.[13] It is not clear how frequently other

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[1] Lowie, (f), 822, 817, 820.
[2] Lowie, (a), 217-223.
[3] Lowie, (d), [illegible].
[4] Russell, (d), 170, 389.
[5] Mooney, (b), 920, 921; Powers, 42
[6] Du Bois, (c), 102, 148.
[7] Reid, 24. (Reid's account, published in 1885, is earlier than the period at which the ghost dance reached the Havasupai).
[8] Goddard, (c), 2nd ed., 105.
[9] Mooney, (b), 920; Dellenbaugh, 178; *Ghost Dance in Arizona*, 68.
[10] Lowie, (i), 301; (f), 823.
[11] Lowie, (f), 822.
[12] Parsons, (b), 467; Franciscan Fathers, 370.
[13] Tozzer, (a), 150; Franciscan Fathers, 377.

[Text continues on p. 272]

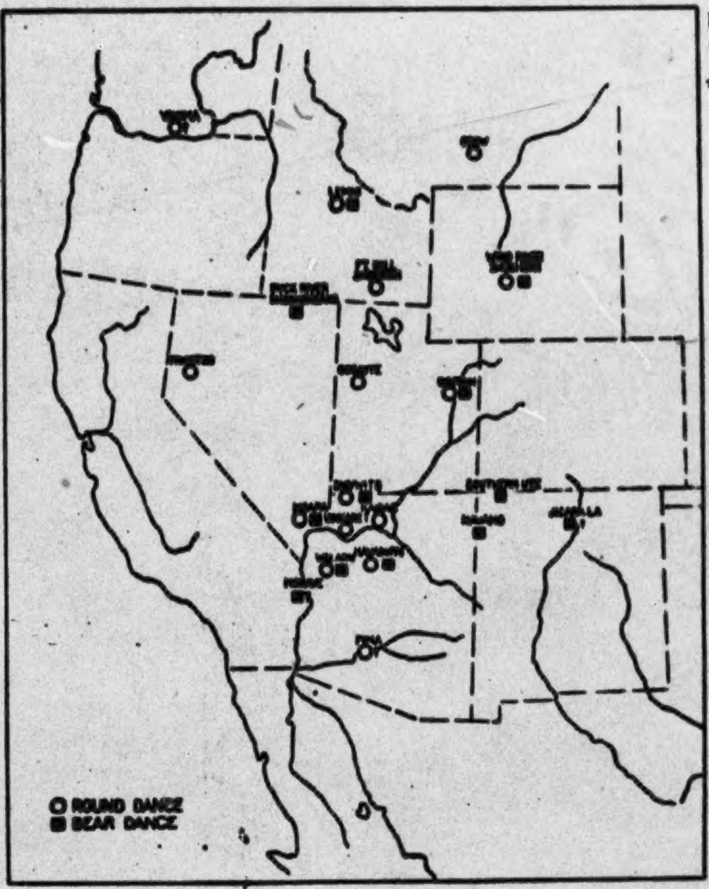
ROUND DANCE
BEAR DANCE

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Fig. 53. Distribution of the Round and Bear or Mohave Dances.

It is not clear how frequently other
171 tribes use a notched rasp or other substitute for the drum, but it is
535 specified that no drum is used by the Gosiute and Uintah Ute. Nor is it
[534] used by the Lemhi in the *Nuskin* and the Wind River Shoshoni in the *Naroya*, although it is used by them in very similar dances, and no drum is mentioned in connection with the Moapa and Shivwits accounts.

Masked performers are characteristic of Pueblo, Apache, and Navaho
171 ceremonials, and perhaps of other Southwestern tribes, as they are to the
535 south in Mexico. Without a complete knowledge of these, comparisons
532 with the Havasupai dancers cannot be attempted. I note, however, that sack-like masks are used by the Zuñi, White Mountain Apache, and Navaho.[1] Masks probably do not occur to the north and west although there is something of the sort among the Pomo and their neighbors. The Pueblo dancers also carry branches in their hands.

The Mohave dance is the Bear dance of the Basin tribes. This is
171 known, at least by another name, to the Moapa and Shivwits Paiute,[2]
535 Southern Ute, Uintah Ute, Wind River[3] and Lemhi Shoshoni, the Paviotso-Shoshoni of the Duck River Reservation,[4] and, according to Southern Ute information, to the Navaho and (Jicarilla?) Apache. My information adds the Havasupai, Walapai, and, by inference, the Mohave. There is even some suggestion of it in the Yuma mourning ceremony.[5]

The dancers are always of both sexes, but not always segregated in two lines that face each other. The Moapa, for example, form couples or trios facing or dancing abreast; in the Wind River Bear dance, at least, trios always face their partners; Lemhi men and women form only one line. Uintah performers sometimes dance as couples, as well as in line formation. The step is always the same; the lines trot to and fro, save that the Northern Ute advance toward each other. Partners are chosen by the women in most cases (Southern Ute, Northern Ute, Wind River Bear dance), but either sex may choose among the Lemhi, in the Wind River *narupinaru*, and sometimes among the Moapa. The Havasupai do not dance as partners, so far as I know.

The principal departure of the Havasupai dance from the others is
171 in the musical accompaniment. All the others use the notched rasp.
533 In fact, the Havasupai use of the rattle, stationing the leader who bears it in the middle of the line, ending the song with the ejaculation ha' ha'

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[1] Franciscan Fathers, 382, 389; the Mohave have no masks (Kroeber, (a), 232). The Pima and the Yaqui of Sonora make use of wooden ones (Russell, (d), 107); Ghost dance in Arizona, 67.

[2] Lowie, (l), 299–301.

[3] Lowie, (f), 823–831.

[4] Lowie, (a), 219.

[5] ". . . . Opposite lines of Indians, who in the day-time march to and fro over the open ground. One group is provided with grotesque clay images . . . . fixed upon poles and carried high in the air by young bucks. An old squaw walking backwards cast handfuls of corn upon the images . ." (Trippel, 3).

ha', and continuing with rapid rattling after the end of the song, are all clearly taken over from the Pueblos.[1] 171 535 [539]

A few further points will bring out the nature of this dance complex, though they do not pertain particularly to the Havasupai. The time at which the dance is held is much the same: Lemhi, spring; Northern Ute, February or March; Southern Ute, very early spring; Wind River Shoshoni, to bring warm weather. Lowie observed the Moapa dance in August, however.

A refusal to dance nets a whipping among the Southern Ute and Moapa. It is more serious for the Duck River man, who will be overtaken by death, and the Lemhi, who will be killed by a bear. In the Klamath Ghost dance, one who failed to dance would be turned to stone. The Moapa, Uintah, and Wind River dances terminate when someone falls exhausted; the Uintah believe that the bear will help such a one in sickness and the Wind River, that the dancer must imitate the bear lest he be killed by him.

The Uintah and Southern Ute erect a circular brush enclosure for the dance; the Wind River, Shoshoni, Moapa, Havasupai, and Walapai do not.

There is some suggestion of the history of this dance. The Ute are credited as the source of their dance by the Duck River people and by some Wind River Shoshoni. The Shivwits state that it has been recently introduced from the Uintah Ute, the Moapa receiving it in turn about 1910–12. The dance among the several Ute divisions is, to be sure, the most serious affair. The Shivwits have also recently added this dance to their mourning ceremony,[2] similar to the Walapai and perhaps the Mohave and Yuma practice. But the mourning ceremony came from California, reaching the Moapa perhaps fifty or sixty years ago and the Shivwits much later. Are we to assume that the Mohave did not have this dance, or at least include it in the mourning ceremony, until that time? The association of the two corresponds to the change noted by Powers as having occurred in 1860–70 among the Miwok, who introduced or substituted dancing and dirges for the annual cry. His brief description suggests the Bear dance: "others, with arms locked, pace to and fro in a beaten path."[3] The suggestion is that the mourning ceremony was spreading eastward and northward from the Mohave; the Bear dance westward and southward from the Ute. So far as the Walapai are con-

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[1] Du Bois notes a similar expression closing a circling dance of the Northern Diegueño. The dance is said by the Luiseño to have been introduced among the Indians of the interior as part of the Chungichnish rites (b), 137.

[2] Lowie, (l), 279. The Moapa use the round dance in this connection.

[3] Powers, 355, 356.

171 cerned they may have obtained the dance from the Mohave at a much
535 later date than the mourning practices.

The trifling use to which the Havasupai put jimpson weed hardly
171 suggests its place among the southern Californian tribes. It is essen-
276 tial to the initiation ceremonies of the Yokuts, Salinan, Kawaiisu, Luiseño, Diegueño, Juaneño (or Gabrielino), Cupeño, and Cahuilla.[1] But it is not confined to use in the toloache cult even in southern California: the Mohave and Chumash know it and the Yokuts and Cahuilla use it for curing broken bones. This suggests the Zuñi who apply it externally to wounds.[2] They also use it as a narcotic, to commune with the dead, and to obtain visions of thieves. The Navaho also evidently use it for detection.[3] Walapai shamans prophesy while under its influence and the same applies to the Aztec, who also used it ceremonially, if Safford's identification holds.[4] It is also known to the White Mountain Apache and Paiute, and is a source of power for the Tepecano.[5] Either of two possibilities is open; that the Southwestern use represents an attenuated form of the Californian initiation ceremonies, or, as seems more likely, that it is part of a general use of the plant which was locally connected with the boy's initiation rites in southern California.

Some facts suggest that the double-headed drum of the Havasupai
171 has a limited distribution. The Zuñi, Hopi, apparently Nambé, Pima,
534 Maricopa, Huichol, and Wind River Shoshoni make similar double-headed drums of cottonwood logs. In the same area the Navaho use only a cooking pot with a skin stretched over its mouth or an inverted basket. At least the drum is not a Californian instrument.[6]

The looped drumstick is not universal. It is recorded as used by the Navaho, Western Apache, Hopi, Zuñi, Shoshoni, Mandan, and Tlingit.[7]

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[1] Kroeber, (f), 8, note 17; (g), 55; (c), 814; Mason, J. A., (a), 162; Sparkman, 221; Spier, (e). 316–321; Parsons, in Robinson; Gifford, (a), 160; Hooper, 343.

[2] Stevenson, M. C., (b), 385–7.

[3] Parsons, (a).

[4] Bourke, (d), 182; (e), 455; Safford, [illegible].

[5] Hrdlička, (f), 23; Palmer, [illegible]; Mason, J. A., (d), 142.

[6] Hough, (a), 279, 294; Goddard, (r), 2nd ed., 108; [illegible]; Russell, (d), 167, states that only an inverted basket is used; Lumholtz, (b), 316; Lowie, (a), 200; Franciscan Fathers, 297; [illegible], 222; Matthews, (b); Spier, (c), 343.

[7] Franciscan Fathers, 297; Bourke, (c), 462; Stevenson, J., Fig. 551. A Zuñi specimen is in the Anthropological Museum, University of California, a Shoshoni one is in the Museum of the American Indian, and a Tlingit in the Washington State Museum; Densmore, 8, Plate 6.

RELIGION

Religious matters occupy but a minor place in Havasupai life. Ceremonialism is meager and interest in the supernatural is neither extensive nor developed in systematic form. 771 [796]

The paragraphs which follow express religious notions as they are known to a layman. It is regrettable that it was not possible to obtain the viewpoint of the shaman. Of the two living at the time of my visits, one died during the second winter; the other is quite deaf. [124]

Souls, Spirits and Shamanism

Each human has a soul in his heart; the word, *yuwafie*, refers to both soul and heart. It leaves his body at death, but not when he dreams or lies unconscious (*k'ódjimpik*, a little dead). More explicitly, when a man dreams that he is in a foreign land, he sees (or feels) his fleshly self as actor, not his soul. To be sure when he wakes he is lying where he fell asleep, he is fully aware that he has been dreaming, yet he offers no explanation why others saw his slumbering form when he thought himself in another place. 774

The soul of a dead man may appear as a ghost (*ámiyé*[1]); this is short and like a shadow. Shamans alone commonly see ghosts, or rather, their familiar spirits seek them out at night and report their doings, yet others may see them. When a ghost appears to a man it is a portent that a relative will soon die, or else it is to cause the man himself to sicken. Ghosts are said always to be malignant; a man who heard and saw one would sicken that very day and fail fast. People are afraid to go about alone at night, especially near the burial ground, which at any time is dangerous, for fear ghosts will frighten or seize them. Yet the following instances show mere sight or contact is not in itself harmful. 775 [787] [769]

Susie saw one near her camp one night. He looked like an ordinary mortal; he was bare-headed. He passed on down the canyon. In the morning, the whole family examined the spot but found no footprints.

Arthur saw a ghost in the brush at the head of the creek. He looked like a man, except that his head was much larger.

Pete also saw one. He met him near dawn in Lee Canyon. The ghost said that he wanted Pete to dismount and sit down to talk with him, so he did so. Pete nodded and fell into a doze. When it was nearly daylight, the ghost said, "It is light now; let us go," and he went ahead. When the ghost was twenty feet away, Pete thought he would keep up with him and talk, but the faster he whipped his horse, the more the ghost drew away from him. The ghost led him along a trail following a ledge that

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[1] The word [illegible] was also given for ghost in an association test.

775 was used by people long ago. Pete cut across by a new road to intercept him, there he waited and watched, but the ghost never came. Perhaps the ghost made him drowsy. The ghost did not look exactly like a man, rather like a man's shadow. The horse was not afraid at first, but by and by the ghost looked like a man; then he shied, bucked, and refused to follow him.

The souls of dead men are said to go to the north where they live well, but what the hereafter is like and even its location is indefinite in the minds of informants. It is not known if the soul of a suicide also goes
[774] there. Objects have no souls, but one informant stated that dead trees and weeds were in this land of souls.[1]

Reference is made in a myth to Pagiyógá (man+to draw after) who
177 draws souls into the sky. According to Sinyella this concept existed when
775 he was a boy, whereas Pagiyóvá (man+make alive again), who makes
776 people live after they die, is the white man's God. Manakadja identifies Pagiyóvá with Dudjipa, one of the two culture heroes.

The older speculative writers on the origins of religion have placed
774 so much weight on the savage's confusion of his identity or his soul, or
822 both, with certain illusory phenomena, as reflections, shadows, dream apparitions, etc., that a consideration of the Havasupai ideas may well be given at this place. Neither the dream-actor, the reflection of one's face in the water, nor one's shadow bears any relation whatever to the soul. The attitude to the mirrored image is our own. Two words for shadow
[192] are used; *witagoeä*", that of an animal (man, dog, or insect), and *yá'dealyá*, that of any other object (cloud, tree, or house). The distinction is of name only; the shadows do not differ in kind.

> The mirrored image goes with me; when I leave the pool it leaves with me. When the sun shines, my shadow shows; when it ceases to shine perhaps it returns to my body. (Sinyella).
>
> I think my shadow goes to the sun, because it fades as the sun ceases to shine. No; when I walk into another shadow, mine becomes merged in it. Wherever I go, it goes. At night it may be with me, or may have gone off somewhere; I do not know. (Jess)

Spirits, in distinction to souls, are limited in number. Almost
776 without exception they are shaman's familiars. Nobody has seen a spirit
787 (*sitmá*")[2]. Each shaman has one within his chest. When he wants to discover something he sends the spirit traveling, perhaps for a day and night. The shaman goes out into the darkness; his spirit is heard hollering and whistling to him from a distance. It re-enters his mouth, makes noises, and talks. The shaman shuts his eyes and apparently sings, but in reality it is the spirit telling what it saw.

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[1] No food offerings are made to the dead.
[2] Possibly identical with [illegible] (doctor, medicine).

The character of the spirit is not usually designated, but those 776
specified include a wolf, a hawk, and the spirit of the mythical personage 787
who made the deer. A pregnant woman may hear the cry of a certain 756
small hawk (*adjádá*). Later the child pines, or if strong, he may often lie down as though fainting. A shaman called to sing over him, tells the mother, "When you were first pregnant, you heard a hawk calling. The child has a spirit in him; that is the hawk which entered at that time." Sometimes the shaman may succeed in carrying off the hawk spirit; then the child will live.

Despite the fact that the sun, the rocks and trees, etc., are addressed 776
in prayer, spirits are not generally localized. Only one such is spoken of. 778

> Long ago the mythical people made spirits and put them somewhere, so that one [781]
> can dream of them, get them, and thus become a shaman. Spirits are not about here in the trees, rocks, etc., but one is in an over-flowing pool (*[illegible]*, black water in a round place) located in a little canyon beside the Colorado on the Walapai Reservation. It has a rough wall around it. People do not approach it, but when they look down on it from above, it wells up, although it is not hot. Strewn about are shell beads, arrowheads, deer bones with incised decorations (but no turquoise), placed there by some prehistoric people. Neither Walapai nor Havasupai offer to it.

Several mythical beings are referred to in myths, such as Pagiyôqa [773]
and Pagiyôvà. It seems doubtful that these are prayed to nor do they [782]
address the two culture heroes in prayer.

Spirits are the cause of illness, although this belief does not preclude 753
that which holds minor ailments due to natural causes, infringements of taboos, or to illy-defined magical practices. A dead shaman may send his spirit into the body of one who corruptly imitates his songs; the creator of deer sent his into the man who wantonly slaughtered the animals; the hawk-spirit enters the body of the unborn child.

There are perhaps three types of shaman: those who cure (*gīθiyē'*) 756
weather shamans (possibly called by the same word), and practitioners of 791
a sort (*gīsúmá*)[1] who specialize on fractures, wounds, or snake bites, in 778
following the deer, etc. Apparently all of them dream, but only the first have familiar spirits. These three types are fairly distinct, but not exclusive; for example, Doctor Tommy, who divides his time with his Walapai father's people, and who performs most of the cures (including those of snake and scorpion stings) claims to bring rain and to have medicine to destroy the whites. Only men can be shamans. [462]

Shamanistic power is acquired by inheritance or by dreaming. In 756
1918 there were three men recognized, Bob and Doctor Tommy, who both 791
776

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[1] Compare Yavapai [illegible], shaman (Corbusier, [illegible])

756 cured, and Rock Jones, a weather shaman. Bob had his spirit from his
maternal grandfather, he is reported as having said. When he was about
791 to die he instructed Bob and presented his spirit to him. In late years
776 Bob suffered severely from tuberculosis, coughing up blood, and with it
lost his spirit—and his influence. Mamakadja, the head chief, called in a
[578] Yavapai shaman for his daughter, which angered hot-tempered Bob to
the extent that he refused to leave his spirit to a relative. Usually when
a shaman is sick his spirit stays with him and cures him, but Bob's spirit
left him, because he willed it, and so he died. His rattles and medicines
(?) were broken and buried with him. Rock Jones inherited his powers
from his maternal uncle, whose specialty was also rain making. Sinyella's
maternal grandfather was a shaman, but no one inherited his power.
[428] Perhaps there is only a tendency toward inheritance;[1] so far as it goes
the attitude is that toward personal property.

In the final analysis, power comes through dreams: all three types
756 of shaman dream, and it is also probably necessary for those who inherit
787 spirits to dream. Rock Jones, for instance, dreamed of lightning and
791 thunder, saw the pouring rain and hail, and dreamed that he sang to make
it rain. Now he uses that song.

Only the curing shamans (*giθiyə'*) have spirits; in one instance it
756 was stated that a shaman temporarily had more than one. Sinyella said
776 that his maternal grandfather frequently dreamed of the wolf. When he
sang for the sick the wolf spirit (*hatagwe'latadj*) could be heard out in the
[755] darkness. Then his own familiar spirit went outside, whereupon the wolf
spirit entered his body and performed the cure for him. When the cure
was completed this wolf spirit left him again. This man was also a
weather shaman.

The important shaman is the one who cures. Dreaming comes
756 before practice. Mark is said to be trying to become one, but is not
[787] proficient yet. His gourd rattle is placed at the head of his bed: when
he wakes he seizes it and tries the song he has dreamed. During the
half-year since this practice began he has sung over his sick nephew, Jess,
many times, but he has not attempted sucking out the disease. In 1919
I was told that Little Jim was becoming a shaman. He had seen a spirit
in his dreams but it was afraid as yet to enter his body. My informant
stated that it was too early to know whether Jim would be a success.
In 1921 he was a full-fledged shaman, though not prominent. His
first patient was Melvin in October, 1920 (p. 279).

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[1] It is doubtful that there is any significance in these instances in the inheritance from a maternal relative.

The shaman is called in by a relative of the sick man.[1] He performs 755 by night in the camp (never in a sweatlodge), singing over the patient, and sucking out the disease which he exhibits. The characteristic attitude while singing is with the clenched knuckles of the left hand held against the forehead, the right hand holding the gourd rattle, while the trunk is slowly twisted from side to side. Relatives and friends gather to shout as the shaman may enjoin them.[2]

Once about 1900 I [Sinyella] was sick with a white man's sickness, fever, and I nearly died. Rock Jones and another Havasupai shaman, A'mal (suck), sang for me but did not cure me. I nearly died. Then two white men came down the Walapai trail. I said, "Tell them to look at me." They had two kinds of medicine which they [649] gave me: "Give it to him three times a day." I took this and got well quickly.

A'mal used a gourd rattle and sang over me where I lay close to the fire; he sang thus four nights. He shut his eyes as he sang; then his spirit could see, yet he could see with them too. The first or second night he applied his mouth to my body so that his spirit could bring out the sickness in my body. The spirit went into me and looked all around; it made me shake hard then. It went back down his throat with a gulp. The spirit said, "This sickness is a white man's sickness: the white doctor made that sickness a long time ago. It is very bad; that is why I cannot get it. It is too small, I could not find anything tangible; it only makes you shake and cold and hot together." Another night the spirit said the same thing.

All my relatives were there, men and women, and many friends. None slept; they shouted, and told the shaman, "Be strong and see what you can do." He said to them, "Do not sleep; stay awake; shout and help me, and I will do the best I can." They called him their relative and he felt fortified thereby.

Rock Jones is not a doctor; he only knows about making rain. But sometimes sick people want him to sing for them; he does not suck. He can tell about thunder, [791] lightning, wind, hail, snow and such things.

Doctor Tommy treated Lina for aches, particularly for fever in the head. He sucked her forehead directly with his lips. His spirit drew out the trouble which he showed her; little white worms like threads, about a centimeter long. He also instructed her husband to cut her hair short; this cured her somewhat.

Jess, who has consumption, consulted Bob, who sang over him. He said that if Jess heard a little clicking noise in his chest, he would be worse, otherwise he would recover. Jess does not know what Bob sang about.

Little Jim's first patient was Melvin. He sucked the lad's eyes and other painful parts. [My informant did not know if he exhibited any object.] He ascribed the ailment to the fact that ten or more years ago the boy's father, Sinyella, went among the Navaho trying to learn their shaman's songs. But he erred in repeating the words: bad spirits made his eyes fail. They have been with him ever since, although he stopped singing these songs as soon as he sickened. Nevertheless his oldest son, Lanoman, and a younger, Melvin, were also afflicted.[3] This is always the case, that if a man makes errors in singing a dead shaman's songs, the latter becomes angry and sends his spirit to make the offender sick.

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[1] He is not given turquoise as among the White Mountain Apache.
[2] Cushing, (a), 552.
[3] All three have aggravated cases of trachoma.

[164]

756 If the patient does not improve another shaman may be called on. 755 In fact there may be more than one shaman working on him at one time. No professional jealously is aroused by calling in a second, it is said. Their efforts alternate, one sings for two or three nights, then the other; they may even be present at the same time. A novice may ask instruction of an older shaman.

755 Little Jim sucked Jess' chest and neck. Although he made no incision, he spat out blood. He said that Jess was suffering from a spirit sent by the being who made everything, deer, rabbits, and mountain sheep. Later the same summer, Doctor Tommy announced the same opinion, for he too sent his spirit into Jess while the latter slept. After a week or so Jess would cough up less blood and the pain subsided; Tommy's spirit would then return to his master to inform him that the evil spirit was gone. Jess added that when hunting he killed many deer, two or three each time. He wasted the flesh, even several carcasses together. This offended the man who made the deer; he did not want Jess to kill so many, so he sent his spirit.

756 The attitude of the people at large is fairly well indicated by these examples. On the whole, they have an implicit belief in shamanistic practices, though the ability of a particular shaman may be doubted and even scouted. Personally, the shaman may not be held in very high esteem—they are half contemptuous of the dwarfed Walapai Doctor Tommy—yet they freely call on him. Now that Rock Jones, a weather shaman, is getting old and deaf, his powers are held in low esteem. They [648] also secure the services of other Walapai, Navaho, and Yavapai, whose practices are similar to their own.

755 Once about 1885 when Lemoman, my oldest son, was about seventeen years old, he was pretty sick. I [Sinyella] got a Walapai shaman to cure him, but he did not get well. The Walapai shaman said: "It is very difficult." Then I took him over to Coconino Basin; other Havasupai went there too. I found many Navaho there; I asked who was a shaman. They said, "One who is here is a good shaman" and they showed him to me. I asked him to cure my boy; "If you cure him, I will give you two dollars" and I gave it to him. He sang for the boy two nights; he had two women with him who also sang. He had four stone arrowpoints, and he stuck one in the ground at the head and one at the foot and one on each side of the boy as he lay there. He stopped after two nights, and said the boy would not get well. Then I got a Havasupai shaman, Watahomidja's father. He said, "It is pretty hard to cure that sickness. That sickness is due to your [Sinyella's] dead maternal grandfather (a shaman), who sent his spirit to fetch Lemoman (i.e., make him die)." His spirit could see this. That shaman said, "I do not think I can cure him, it is too hard for me. I think my younger brother, who is a very good shaman, can do it. So go and tell him to come and cure him." So I sent a man by the most direct route to Moho Canyon on the Walapai Reservation to ask A'mal to come. The night he arrived he began; he sang all night very loud, and sucked. His spirit brought out all kinds of things, hail (it looked like hail), lightning, clouds, snow, and something relating to a wolf. He brought out all the things that made the boy sick and showed

them to us in his hand. He did this two nights. Then the boy said he wanted to eat more, and got up and walked; he said he was a little better. The shaman made him well quickly. All the Havasupai were down there in the Basin; it was time to gather piñon nuts. The shaman sang for four nights; then he said, "The boy is getting better, I do not want you to stay down here; you might as well take him to wherever you think you want to stay. We will all go there with you and then I will go back home." So we moved to Rowe's Well Canyon again [near Grand Canyon Station]. The shaman again sang four nights and said, "I have taken out all the diseases he had; there are no more in him now. I will leave you now and return." When the shaman was ready to leave, I gave him a blanket and a buckskin. I felt glad because he had cured my boy. Some men had killed plenty of deer and they gave him meat because they were glad. He had too much for one horse, so we lent him another to carry it. So the boy got well. 755

He showed us the hail, but he told us about the lightning, clouds, snow, and wolves: "I got these, but they cannot be readily seen. My spirit can see them perfectly, however. I will just show you the hail, so you can see it is all right." When he sucked out the wolf he staggered around and ran out into the darkness. We heard the wolf howl. The hailstone was round and white: it looked like hail. He also sucked out my grandfather's spirit, which he showed us; a little white man, with a head but no limbs.

Whatever their opinion of the shamans they believe in the efficacy of their cures. Possibly we may suppose the shamans share the belief, 756 for they are said to cure members of their families as well as themselves. At any rate the penalty for malpractice is death. Smiley's father, a Walapai shaman, was killed because he was held to have spitefully and magically caused an epidemic (p. 238). An unsuccessful shaman, particularly one who had failed for a long time, might be killed by a relative of a patient who died.

Weather shamans are about on a par with those who cure; possibly 791 they are called *gi'θiyĕ'* like them. They obtain power by dreaming of [787] clouds, thunder, lightning, and of great rain and hailstorms. One who dreamed this continually would sing of what he had dreamed, using a gourd rattle. After a long time he would feel that he knew all about it; then he would try to produce rain.

Rock Jones is a weather shaman; Sinyella does not know whether 791 he has a spirit. When it has not rained for a long while, he will try to 789 make rain and sometimes succeeds. Sinyella said, "I know that once he made it snow on the plateau; I saw the snow." He sings and rattles throughout the night for four nights to get results. The same informant stated that the singing did not take place in a sweatlodge; yet, on another occasion he explained that the flood of August, 1918 was due to Rock Jones' singing while they were bathing in the sweatlodge. At the moment these two were alone. Rock Jones began to sing about great

789 lightning and rain. Suddenly the storm broke, everyone scattered, and
791 the two heard the hail pounding on the lodge.

There is a more extended performance for producing rain. A ring of brush is made, within which men sit in a circle with Rock Jones[1] at the center. At his command they rise (but do not dance) and sing about the white clouds, the big black storm clouds, the lightning and thunder, rain, the wind blowing hard, storm water running on the ground, the foam on it, and so on. When they tire he orders them to sit; then they sing again. This makes rain aplenty (so attests Sinyella, who has taken part); the ground is wet, the grass grows well for the horses to fatten on, all the seeds grow plentifully, and everyone is happy. Rock Jones' hair, face, and body are painted white; this represents white clouds. His face and body are also colored black and red for the storm clouds and the red hue of the clouds at dawn and sunset. For a robe he wears a big buckskin tied by its legs over the right shoulder and hanging under his left arm. He wears moccasins, leggings, and buckskin pants. An eagle tail plume is thrust upright in his hair; to the tip of this the largest, softest down from under these tail feathers is tied. Two similar plumes are thrust crosswise through his front hair like horns. His gourd rattle, a flat one, is painted longitudinally with zigzag stripes of red, white, and black. The other men are stripped to the waist; hair, face, and trunk are painted white. Some also had buckskin for robes.

It is not altogether clear that those who are specially endowed to
756 cure snake bites, fractures, and wounds, or to hunt deer, etc., should be
classed with the shamans. A man may continually dream of the deer;
224 he sings about it. Finally he hunts and finds that the deer stand while
791 he approaches, for they do not fear him; so he is able to kill many. He
informs others who then hunt with him. Such is called a deer doctor
(*dqwigd gisdmd*). He is good at catching such animals as mountain
sheep, jack-rabbits, cotton-tails, etc., but he has no control over foxes,
coyotes, wolves, wildcats, or mountain lions. There are various other
756 kinds of doctors, among them, those for sickness (*gwetdvög gisdmd*),
for fractures (*pakaúd gisdmd*), for wounds (*nahdmi'dvidja gisdmd*), for
stomach trouble (*nundlaidji gasdmded*), and for snakes (*dluwi sdmd gd*).
Both doctor and medicine are called *gisamd*.[2]

Doctors for stomach trouble practise only on infants still in the cradle, who are afflicted with disturbances of the bowels because their parents have eaten portions of deer carcasses killed and partly devoured 756 by wolves or mountain lions, or of rabbits abandoned by eagles. The baby is sung over by the doctor who knows the songs about these animals or the eagle[1] as the case may be. Potions are not administered by the doctor nor by any other. The eagle song is as follows, the last line being repeated three times:— [539]

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[1] I do not know if this procedure is used by other shamans.

[2] There is a mythical reference to a wind-and-black-sand doctor ([illegible]). "Tear some [black sand?] off and make it dark," he is told (Spier, (f), 112).

sakȧhútana ȧsá
eagle eagle
ĭnyȧhátĕnҽ ĭnyanyȧhátȧ
my domestic animal my dog
iyȧwaiĕnҽ yuwaíȧ
you concern my heart my heart
huyuwĭ'nŏna hu
head head

Desoumalaua's father was a snake doctor. A man who had been 752 struck in the calf by a rattler came to his house. He immediately made 755 short incisions all about the puncture, tied a ligature about it, and sucked out the blood. At night he sang just as a shaman does, waving a feather (the longest from the eagle's wing, covered with white gypsum) over the wound.[2] A ring of sagebrush (*Artemisia ludoviciana*) is put around the limb to draw out the poison, not the blood, on the ground that the snake may know and use this plant. The snake doctor can cure the bites of the three snakes recognized as poisonous, viz., ȧluwi'tavȧ, the prairie rattlesnake (*Crotalus confluentus* Say), haiwi'tȧ, the Pacific rattlesnake (*C. oreganus* Holbrook), ȧluwĭhală'dă'dȧ, the western striped racer. (However the last, a fierce fighter, is not a venomous snake).[3]

One who was struck by a snake would catch it and, grasping each 755 jaw, attempt to split it in two. If the snake split quite to the tail, he would recover, otherwise he would die.

The shaman's rattle is a gourd, obtained from the Hopi. Each [439] shaman presumably has his own, but one that belongs to a layman 756 may be borrowed by those who want to cure. (One such rattle was also 534 borrowed for the Mohave dance). They may also be inherited as part [428] of the shamanistic properties.

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[1] The Maricopa have eagle doctors "because they are afraid of eagles" [Mohave information, Bourke (a), 172]. [171]

[2] Another time the informant said that this was a Walapai practice only.

[3] These are probable identifications made by Miss Edna M. Fisher from native sketches and descriptions. In addition my informant recognized three non-poisonous snakes: *algialiti*, the Arizona gopher snake (*Pituophis catenifer rutilus* van Denburgh), [illegible], the Arizona king snake (*Lampropeltis pyromelana* Cope), and [illegible], possibly the spotted night snake (*Hypsiglena ochrorhynchus ochrorhynchus*).

The dried gourd is mounted on a wooden shaft which projects entirely
534 through it. It rests against a neatly fitting collar cut on the handle and a
756 thong wound around the protruding end of the shaft keeps it from coming
off. Little holes are drilled in the gourd to allow the fibers inside to drop out, so that the sound will not be muffled. The holes are placed in more or less regular longitudinal rows. Only the shamans know what significance they have.[1]

Turtle shell rattles, dewclaw jinglers, baskets to serve as drums, and whistles are not used by the Havasupai.

MEDICAL PRACTICES

Besides the shamanistic performances, there is some matter of fact
757 knowledge of curing.

Care of the sick is cursory, or rather there seems to be no special
758 provision for their care. They share the house and the bedding with the
rest of the family; the common family dishes are presented to them to select from. Still there is some solicitude. They are not left unattended; an old woman relative may be seen seated by a sick child, fanning the flies away, and arranging shade for his protection. Yet, the conditions are so adverse that it would seem that only the strongest could survive a serious illness.

Wounds are sung over in the sweatlodge by the wound doctor, who
752 knows the appropriate song, while he blows on them. The blood is
[755] squeezed from all sides toward the cut until no more flows. If the wound
suppurates, similar pressure is applied until there is a flow of healthy blood. Boils or blood blisters are cut open and the pus squeezed out. Usually a wound of any sort is not dressed, but sometimes clear white piñon pitch liberally smeared on a handful of plucked rabbit fur is applied. After a day or so, when the wound itches, this is removed and the pus squeezed out. Four or five renewals are necessary before it heals. Amputations are unheard of.

Scorpion stings are treated similarly to snake bites and possibly by the snake doctor alone. Incisions are made about the ligated wound and the blood sucked out. Dog and rat bites are not treated. People die quickly from skunk bites; they cannot be cured.[2]

A fractured arm is set, bandaged, bound between thin splints, and tied close to the body. Usually the arm is laid in a trench, while lying

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[171]

[1] But they are not the star patterns of the Navaho. [Compare Tozzer, (a), 29-32.]

[2] The Navaho also maintain that the bite of the skunk is poisonous (Franciscan Fathers, 142) and the Rio Grande Mexicans that it causes rabies [Bourke, (f), 136]. This is commonly thought to be folklore, but E. W. Nelson states (1876) that the spotted skunk unquestionably communicates rabies.

on the ground, and covered with a mixture of hot ashes and wet sand. 752
Sometimes it is blown on in the sweatlodge by a fracture doctor who knows the songs: the heat helps it. Strict continence must be observed, otherwise the patient will sicken.[1]

A few medicinal plants are known, but, on the whole, internal 278
medication does not appeal to them.[2] Leaves of cedar and of two un- 757
identified plants which grow on the plateau (*agwáθílká* and *tcikáyálá*) are boiled together for a cold. This loosens the mucus and acts as a laxative. The leaves of *Pluchea* [illegible]*icea* are chewed to relieve irritation in the throat, or they are boiled. A copious draught of Mormon tea (*Ephedra viridis*) is taken to clear the bowels, and sometimes to induce vomiting, in cases of bowel complaints. The root of an unidentified plant, from the highest part of the plateau, Wolf's medicine, (*halágwila isáma*), is boiled and given to infants in the same way. For slight distempers, rheumatism, and headache, an unnamed plant (*Lippia Wrightii*) is boiled and taken copiously. Walapai use this against gonorrhoea.[3] [171]

A bleeding nose is bathed with cold water. Blisters of burns are 757
pricked open with a twig: red paint is dusted over the scorched surface. For earache, coals are buried in the earth beneath the head of the sufferer's bed. Piñon pitch is put in the cavity of an aching tooth and the mouth rinsed with cold water, or the tooth is pulled out with a cord. [752]
Bee stings are squeezed and salt rubbed in.

Powdered red paint is dusted on the bodies of infants to prevent [751]
chafing. The paint mixed with grease is used to soothe the chapped hands, etc., of small boys.

The Havasupai, like the White Mountain Apache, does not thrust [171]
an injured finger into his mouth, though he will shake it to relieve the pain [152]

PRAYERS

A man who wants health, prosperity, or success addresses the earth, 782
rocks, trees, water, air, and wind. He says: "We want to prosper. We 778
wish to be like the earth or rock, to live to be old." The sun is addressed at sunrise: "Sun, my relative, look at us: help us. Misfortune may befall my possessions; perhaps someone will fall sick. You, sun, ward this off. You know how to help us prosper." In praying to the sun, a man draws his hands down his face as he blows to brush the evil away.[4]

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[1] Those struck by lightning are not bone-setters as at Zuñi. In fact, my informant had never heard of anyone so struck save two Walapai who were killed. [171]

[2] This may be related to the Cahuilla dislike of taking medicine internally (Hooper, 351).

[3] Buckthorn is not used medicinally.

[4] See also the prayers used in planting, p. 102, in stringing a bow, p. 150, and to the sun in hunting, p. 110.

782 Inyâîn,îkâdjădj máhânîg mîdjâlîgîg gwipagâvá'âmáwiwŭg
778 sun my relative be good coming out do something good for us

539 pámatáhatáhódŏg . gwégavá'awî'k
make me work so I can do anything I wish in the

matŏnyûvîg î'î'nyúg teyădjáhwâlîg ha'askă'lîgá.
garden I hoe I plant corn I irrigate.

Inyán,îdj má'ahânîg miyâmîg θŏmádópmîg
you, sun be good going down at sunset

iyágîgásmâvîdj túyá áhânáhag'îg'î
we lay down to sleep I want to feel good

ásmámîdjáâlîgîg. vamá'âmámiyûdjá
while I sleep you come up. go on your course many times

áhânápa máwíwug.
make good things for us men.

tuî'nyávâvá'áyûg In,ûdjîgwa'yóhag'î'î.
make me always the same as I am now.

171 778 782 Prayers are also addressed to the springs where prayersticks are planted, but not to the dead nor to the mythical beings in Pueblo style. Prayer plumes are never placed in the tilled fields. "We have a creek to irrigate with: the Hopi plant prayer plumes in their fields because they have none and have to pray for rain all the time" (Sinyella). Such springs are located on the upper canyon level and on the plateau. But the practice has fallen out of use because reservoirs are now made on the plateau.

778 Prayersticks are planted in sets of three. These consist of a trimmed stick, 12 cm. long, from the upper end of which a bunch of down hangs by a short cord. Eagle down is tied to the first stick, turkey down to another, and that of a small piñon bird (*sdadsdau*) to the third. These are thrust into the ground at the source of the spring, a circle is marked with cornmeal about the source, and a prayer is offered:— 539
778

782 áhapŏ'k Inyahâvá matŏ'kmidjâlîgá atiyéhag
spring I drink plenty more come I feel glad

áθîha.
I use it to drink.

ȧswö'gȧ	gwewȧlȧ	wi'vȧ	mȧ'ûg	539
prayerstick	feathers	I put in spring,	look at it	778
				782

matĕ'kmidjpágȧhögwig'i.
plenty more come.

TABOOS AND MISCELLANEOUS MAGICAL BELIEFS

Proscribed types of action are not numerous in Havasupai life; 784 whether they are less binding on that account remains to be discovered. What happens when taboos conflict, as may well occur, was put to a test. Sinyella, when reminded that the father of an infant may not eat nor even 753 touch a mountain lion for fear the baby will sicken, although quivers are 784 made of this skin, replied: "It is all right for any man to carry a mountain lion quiver, but a young man must not touch the beast's flesh. Should he find a deer of which the lion has eaten, he should put sand over the chewed parts. Old men can eat this meat, but not women with infants, for if one does the baby will have stomach trouble." On another occasion, asked why the baby sickened, he said that wolves, mountain lions, and eagles are bad animals; that they contaminate the carcass as with poison. As for the reason that it is the infant, not the parent, who sickens: "Mountain Lion and Wolf said long ago that it would be like that."

Other taboos affect the habits of a couple at birth (pp. 300, 304). 784 The unborn child will be left-handed if the mother uses hers (p. 300). There must be no intercourse before a deer hunt (p. 110). The dead are not named (p. 304) and the crops from a dead man's land are not ordinarily used (p. 233). A boy should not smoke until he kills a coyote and he does not eat his first deer (p. 324).

Magical practices mentioned in other connections may also be re- 789 sumed here. There are special observances at a woman's periods (p. 326): they drink an abalone shell concoction to conceive (p. 301). A string figure is made to forecast the sex of an unborn child (p. 300). The child's first hair is preserved so that later hair will grow, and the umbilical cord is smeared on the child (p. 304). The fate of one twin affects the other (p. 301). Arrowheads are worn to prevent misfortune and ear lobes pierced to prevent deafness (p. 194). Burning with a slow match prevents rheumatism and throwing it back improves the memory (p. 323). The property of the dead is destroyed (p. 292). There is a definite procedure before a deer hunt (p. 109). Mush is the first thing cooked in a pot to make it inexhaustible (p. 140). Race colts are sung over (p. 337). The musical bow is used to make an opponent lose (p.

789 338). Luck is based on dreams (pp. 332, 341). The annual dance and the masked dance bring good fortune, rain, and make the crops grow (pp. 260, 266); feathers worn at the dance bring rain (p. 193). A formula is said when corn is planted (p. 102), when a bow is strung (150), and while tanning (p. 142).

Charms are used only in deer hunting: these are calculi found in the paunch of the deer.

302 754 I was told that hair cuttings are burned so that birds would not use them in nest-building, but I noted no care in their disposal. No care is taken of nail-parings. Cushing, however, implies otherwise:[1]

> [572] As an evidence of confidence in a newly-made friend, a Ha-va-su-pai will sometimes give to him that whereby, in the native belief, even the giver's life may be taken by sorcery,—a hair, a bit of his skin, or a piece of his finger-nail,—this being an inviolable contract of peace and mutual regard.

789 A drawing made in the sand to illustrate a point is erased for fear someone will use it to make the draftsman sick, but how he would use it is not explained. Pictographs, which were made by the mythical beings (*Ückáyúgáliga*)—the Havasupai do not draw them—are harmless.[2]

The bullroarer (*I'igágwaúwá*, wood talking) is swung to make the wind blow and to bring clouds and unsettled weather when warriors set out. Before they charge on the enemy camp it is used to make the wind blow hard, so that the enemy will flee before it. [534] The bullroarer is a flat stick of rectangular shape, 25 to 30 cm. long and 10 wide, having notched edges and painted red. It is fastened by one end to a thong, 1.5 m. long.

[821] [825] A notched stick, laid flat on an inverted coiled tray basket, is rubbed with another stick. The grating noise is said to resemble a frog and to produce rain. The practice was thought to have been copied from the Hopi. The association of these ideas, frog and water, is also noted in the myths: pulling a frog to pieces causes a flood.

[827] A man sneezes because a woman is thinking favorably of him. He then thinks of her and she also sneezes. One also ejaculates: *vagígályúg sadá'ígiu*, I am still alive.

Ringing ears are a sign that bad spirits are whispering to one; perhaps he will die. So he shouts: "Huuu, no; though you talk like that, I am not going to die."

825 Snakes are killed but in the case of rattlers care is taken not to touch the blood or to let it spatter the clothes, for if it is "inhaled" it causes sickness.

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[1] Cushing, (a), 558.

[2] See Muntandus for an account of these.

Prehistoric stone ruins are said to have been built by the mythical beings long ago. The Havasupai do not dig in them as a rule, because they are afraid—the men-animals who built them are dead. Potsherds may be handled, but not used; stone implements, however, may be used as tools and protectors against bad luck. 172 778

COMPARATIVE NOTES

The religious life of the Havasupai is relatively meager in comparison with the Pueblos, in which respect they are one with the Basin tribes. In fact the resemblance is very close with both the Basin-Plateau and Californian peoples in the relative prominence of the shaman, the acquisition of power through dreams, not visions, and an hereditary bias to shamanism. Visions do not figure. Only in the slight use of prayer-plumes and prayers for rain and fertility for their crops do they resemble the typical Southwestern peoples. 171 756 [787] [782]

Killing an unsuccessful shaman as a matter of course is a practice typical of the lower Colorado tribes. By this I mean something more definite than the universal threats against malpractice and supposed evil intentions. This trait is shared by the Pima, Yuma, Mohave, Cahuilla, Yokuts, Miwok, Mono, and Shasta.[1] The Western Apache and the Southern Ute[2] seemingly resemble the Havasupai in that there may be retribution for the loss of a patient, but it does not always follow. It is not always easy to judge from the accounts just how automatic this reaction is, but it is clearly a regular procedure of the Mohave, Yuma, and Pima.

Gourd rattles are apparently limited to the Southwest, being unknown to most Californian and Basin tribes. I have found records of them among the Navaho, Hopi, Zuñi, (and they are probably used in other pueblos), Pima, Yavapai, Mohave, Yuma, Chemehuevi, Koso, Cahuilla, and Southern Diegueño.[3] The last say it has been recently introduced from the Mohave through the Yuma. Doubtless further search in collections and the literature would augment this list. There seems to be some variation in the mounting and decoration of the gourd. The Pima, Yuma, Cahuilla, and Koso, like the Havasupai, mount it on a wooden handle: the Southern Diegueño do not. Navaho, Pima, Koso, Cahuilla, Southern Diegueño, and Havasupai arrange the perforations 171 534

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[1] Hrdlička, (f), 224; Trippel, 571; Russell, (d), 262; Kroeber, (n), 197; (l), 479; Bourke, (a), 174; Hooper, 339; Powers, 354, 380; Dixon, (b), 470.

[2] Bourke, (e), 466; Lowie, (l), 292, 294.

[3] Tozzer, (b); Hough, (c), 203; Stevenson, M. C., (b); Russell, (d), 91, 168; Corbusier, 333; Trippel, 577; Kroeber, (g), 62; Spier, (e), 349.

171 of the gourd in regular patterns; the Mohave and Southern Diagueño
534 paint it, the Chemehuevi do not.

The use of red paint powder to protect the skin from chafing, etc.,
171 may not be general. The few instances of its use noted are Navaho,
751 Pima, and the Puget Sound Salish.[1] The Zuñi and perhaps others use
cornmeal for dusting the skin of infants.

The Havasupai use of prayersticks represents an elaborate Pueblo
171 practice in an attenuated form. I have not attempted to isolate the
778 analogs of the local type elsewhere for lack of special knowledge. The
782 distribution of prayersticks among the modern tribes indicates that their
use is confined to the Southwestern tribes and those of northern Mexico
at least. Prehistoric examples have not been reported from outside of
this area so far as I recall. Their use among the Pueblos is well known.
They are also used by the Navaho, San Carlos Apache (who place eagle
plume sticks in the cornfields), other (?) western Apache (used in a
hunting ceremony), Papago, and perhaps the Pima.[2] The ceremonial
arrows of the Huichol, Tepecano, and Cora are certainly closely related
forms. The Tepecano also deposit in the springs plumed sticks used in
curing.[3] The Northeastern Maidu set up sticks on the graves of chiefs
which are to all intents identical with the Havasupai prayersticks. This
suggests that further examples may be found among the western Basin
tribes.[4] At any rate the practice of planting the plumes is not Californian nor Plains-like.

229 The hunting charm, a calculus from the paunch of a deer, is used in
171 precisely the *same* fashion by the Yavapai and Northern Maidu.[5]

The bullroarer is rather generally distributed over the Southwest,
171 the Basin, and perhaps the Plains. It does not appear to be generally
534 used in California. I have not examined the literature for its occurrence
789 beyond these limits. The Havasupai association of it with the rain is of
778 course characteristic of the Pueblos (Hopi, Zuñi, and the Rio Grande
Pueblos), San Carlos Apache, and Papago.[6] The Arapaho and Klamath
have an analogous usage, to produce wind.[7] For the Gros Ventre, North-

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[1] Franciscan Fathers, 70; Russell, (d), 160; Haeberlin und Günther, 53.

[2] Franciscan Fathers, 396–398; Bourke, (c), 503; (a), 430; Mason, J. A., (c), 15; Russell, (a), 82, 106 (". . . rain ceremonies, during which the medicine-man deposited the tails of mountain sheep together with eagle feathers at springs").

[3] Lumholtz, (c), II, 124, 197, 203–209; Preuss, Tafel VII ("Regen-opferpfeile"); Mason, J. A., (c), 349; (d), 131.

[4] Dixon, (a), 244. The probability is perhaps strengthened by the resemblance to the Havasupai plumes of the Cheyenne hair ornaments worn in the hand game played by Ghost dance converts. (Field Museum specimen 96672). These may have come from the Basin with the Ghost dance.

[5] Corbusier, 330; Dixon, (a), 296.

[6] Hough, (c), 294; Bourke, (e), 477; Stevenson, M. C., (b); Franciscan Fathers, 414; Mason, J. A., (c), 16.

[7] Kroeber, (b), 396.

ern Maidu, and Shivwits Paiute it is only a toy.[1] The Ute also know it. 171
The Luiseño and Diegueño use it to summon people ceremonially.[2] 534
It has ceremonial usage among the Pomo. While the Arapaho model 789
with its serrated edges resembles the Havasupai, it may be that this is 778
a device to increase the sound independently arrived at.

The distribution of the notched rattle, or musical rasp was briefly 171
discussed by Lowie years ago. It is now possible to augment his list of 534
tribes who use it: Havasupai, Hopi, Zuñi, Rio Grande Pueblos,[3] Jicarilla, Navaho, Pima, Papago, probably Yaqui, Tarasco (?), Huichol, and Aztec specimens have been found in the state of Mexico.[4] In the Great Basin and Plains its occurrence is among the Moapa, Paviotso, Gosiute, Uintah Ute, Lemhi Shoshoni, Klamath, Upland Takelma, Wishram, Wasco, Assiniboin, Cheyenne, Wichita, and Tonkawa.[5] The Paviotso also have a form which should undoubtedly be included; this is a stuffed hide wound from end to end to form the rasp. Its distribution appears to be along the western plateaus with some extension into the Plains. It is not used by Californian tribes with the sole exception of the Salinan.[6]

The rasp is scraped with a scapula by the Hopi, Zuñi, Jicarilla, Papago, and Huichol; elsewhere a stick or bone of another sort is used. The Hopi rest the rasp on a gourd resonator; the Havasupai, Jicarilla, Pima, Papago, and Klamath use an inverted basket, the Wichita a rawhide. The Gosiute draw the notched stick across the edge of an inverted basket. This suggests the Southern Diegueño reference to scraping a basket.[7]

The Havasupai associate this rasping sound with the frog and the 171
production of rain. They have also a mythical reference to tearing a 534
frog apart and thus causing a flood. These have analogs elsewhere. 789
The Pima call the notched rattle a "rain stick," for rubbing it brings rain. 821
The Northern Shoshoni believe that killing a frog and placing it on its 825
back will cause rain; the Northern Maidu that chasing it will come to the same end.[8] There is also a connection of the frog with fog and thunder suggested in a Southern Ute myth, the frog and a flood in one of the Luiseño, and an association of the frog and rain by the Klamath.[9]

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[1] Dixon, (a), 220; Lowie, (l), 257; Kroeber, (h), 191.

[2] Sparkman, 211; Spier, (e), 324-326.

[3] Hough, (e), 295; Stevenson, J., Fig. 581.

[4] Russell, (a), 370; Curtis, I, 56; Goddard, (b), 263; (c), 170; Franciscan Fathers, 402; Hrdlička, (e), 41; Russell, (d), 167; Davis, (b), 169; Lumholtz, (c), II, 155, 426; Saville, (c); Starr, (b).

[5] Lowie, (l), 209, 302; Reagan, 39; Lowie, (a), 219, 220; Sapir, (e), 206; Dorsey, G. A., (e), 17.

[6] Hopkins, 56; Mason, J. A., (a), 158; Kroeber, (e), 277.

[7] Brown, 669; Spier, (e), 349.

[8] Lowie, (e), 232; Dixon, (a), 266.

[9] Lowie, (k), 55; Du Bois, (c), 156; compare the Omaha association of the turtle and frog (Dorsey, J. O., 340).

DEATH CUSTOMS

763 Relatives gather before the death and begin to cry: this however
[171] does not seem so stereotyped a procedure as that of the Mohave[1] and
Walapai. The corpse is laid with his head to the northwest, his hair is
764 washed, face painted, and he is dressed in good clothes contributed by
relatives and friends. Sometimes the face is covered. The following day
everyone gathers to wail for several hours or perhaps the whole day.
[624] The chiefs talk, particularly to the relatives, admonishing them to care
for the property of the deceased and not to commit suicide. The mourners
[171] do not sing or dance as they know the Mohave and Walapai do.

Formerly, the body was placed on a pyre at some distance from the
[178] camp, together with the choicest possessions of the deceased. Nowadays it is buried with these objects among the rocks of the lower canyon
level somewhere near the falls below the village. After a few days such
768 of the dead man's belongings as were in the camps on the plateau are
brought down and burned on the grave. Two or three good horses are
killed at the grave (their bodies are probably not burned) or they are
pushed over the cliff. Saddles are often burned or destroyed; sometimes
they are left on the horses. On the return of the funeral party a corpse
[783] bearer might wash his hands, or bathe, and possibly wash his clothes.
There is no formal purification, nor are those who come in contact with
the corpse shunned.

Cremation began to go out of use sixty years ago, the last body being
764 burned twenty-five years back. The change was not suggested nor
178 enforced by the whites. "We wanted to change: we thought burning
was not a good way." I am not certain that the change coincided with
the introduction of the Ghost dance influences in 1870.

Formerly the house of the deceased was burned. Now, as a rule,
768 the brush covering alone is burned, the timbers being saved to re-build
178 elsewhere, though there is no great change in location. The modern
frame house is abandoned for some time. Thus, when their boy died in
1918, Prince and his family went to live with his wife's father. In 1920
he built another house across the creek from the old one, and in 1921 he
was living part of the time in both structures.

Farm land which belonged to the dead is allowed to lie idle for a year
768 or two. This is not always the case, for Panamida planted in Nina's
[183] fields (his older brother's daughter) the year following her death; though,
[428] to be sure, the field really belonged to him. Should there be dependants,

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[1] Kroeber, (a), 231.

however, half the crop only is cut down and burned; the remainder goes 768
to the survivors. Fruit trees may be owned independently of the land on 428
which they stand. The owner may make a dying wish that they be cut [763]
down and burned.

Mourning may be continued by a widow for a half year or longer 765
before she re-marries, though some marry within a few months. During [587]
this period she takes no particular interest in her appearance.

There are no mourning ceremonies (cf. the Walapai mourning, p. 267). In the case of Fred's death in 1919, however, most of the tribesmen met to wail for an hour or so a week after he was buried. This is [177]
said to be the first time that there has been a mourning ceremony "like the Walapai", but there was no dancing, etc. The so-called Mohave dance (p. 267) has been taken over from the Walapai mourning ceremony, but it is not used in mourning.

No offerings are made to the dead. There is no great repugnance to 769
talking about them, but they do not like to do so freely. They never go near the burial ground, never acceded to my request to visit it, and always took my hints at searching for myself somewhat amiss. Mr. Gensler, the [761]
former agent, has noted that they are quite suspicious of the circumstances of death occurring away from the house.

COMPARATIVE NOTES

Two methods of disposing of the dead are in vogue in this general 171
area, cremation and burial. These have well-defined areas of distribu- 764
tion. The first area of cremation covers western Arizona, southern California, and the peninsula. This includes the Havasupai, Walapai, Yavapai, Tonto Apache, Yuma-Apache, Apache-Yuma, Mohave, Maricopa, Yuma, Cahuilla, Serrano,[1] Luiseño, Diegueño, and the people throughout Baja California (or at least most of them[2]). Kroeber's map[3] showing the distribution of the practice in southern California includes Cupeño, Juaneño, Gabrielino, and Fernandeño, for whom I have no data. The Moapa and Shivwits Paiute on the margin of this area both cremate and bury. The Pima, who normally bury, cremate those killed on the warpath, and the Navaho sometimes burn the body with the lodge. The Zuñi now bury and have been doing so for some time, but Castañeda recorded that in 1540 they cremated.[4]

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[1] Information from Doctor W. D. Strong.

[2] Curtis, II, 52, 72, 82, 92, 108, 114, 117; Bourke, (c), 801; Corbusier, 227, 337; James, (e), 148; Kroeber, (a), 281; Bourke, (a), 184; Allen, 615; Russell, (d), 202; Bartlett, II, 262; Cremony (103) states that the Maricopa bury; Trippel, 562; Hooper, 343; Davis, (e), 94, 96; Sparkman, 226; Kroeber (f), note 13; Baegert (387) gives burial for Baja California.

[3] Kroeber, (o), 298.

[4] Lowie, (l), 278; Russell, (d), 194; Curtis, II, 10, 110; Hrdlička, (e), 40; Cremony (102) gives cremation as the universal practice of the Pima; Lipps, 48; Stevenson, M. C., (b), 305; Winship, 518.

[Text continues on p. 295]

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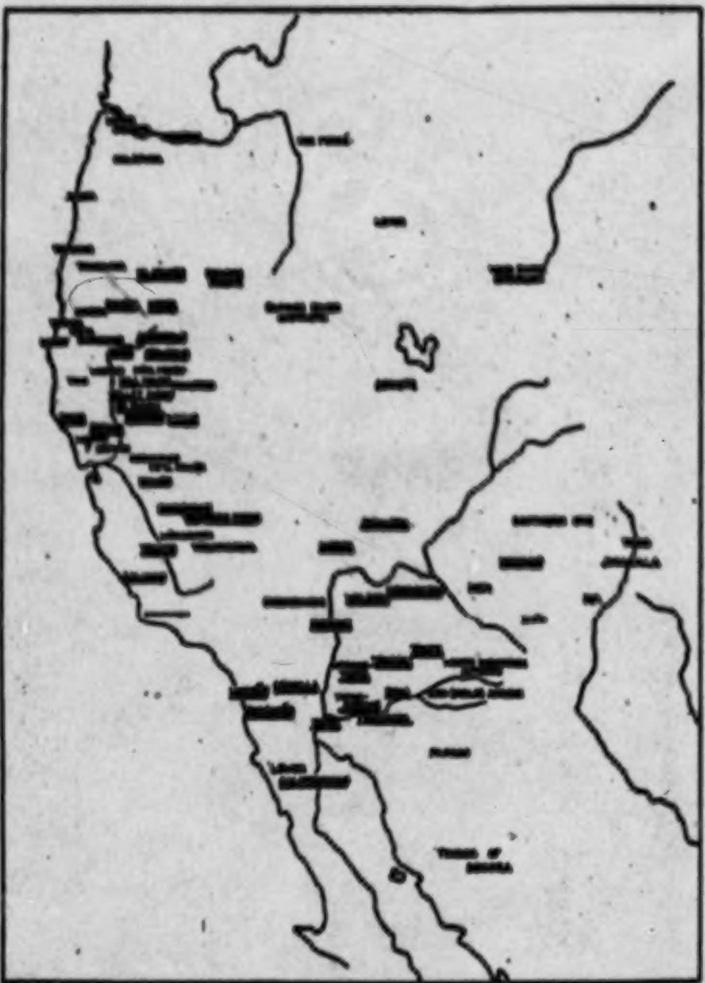

Fig. 84. Distribution of Cremation and Burial. Cremation occurs where names are underscored; cases where both practices occur (or where the evidence conflicts) are lightly underscored.

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764

Cremation occurs again in central and northeastern California. I find this on record for the Yokuts (but burial for the Wükchumni), Pomo, the Patwin near Clear Lake, Southern Maidu, Nemshoo,[1] Washo, Modoc, and Klamath.[2] Both practices are credited to a number of groups in this region. Cremation is favored by Salinan and Miwok, burial by Chukchansi and the Northern Maidu of the foothills. Two Western Mono groups (Balwisha and Wakasachi) buried, but did cremate during at least one epidemic.[3] Burial is the regular form of the Northern Maidu of the Sacramento Valley, Atsugewi, Achomawi, and Shasta, all of whom cremate those who die away from home. The evidence for the Yana conflicts. Certain Miwok (Cosumnes and Mountain Miwok) are said to bury. Wappo myths refer to cremation.[4] Kroeber, who commands unpublished data and is better able to interpret this material, indicates cremation for the Yahi alone among the Yana, burial for the southern Yokuts, and discards the Cosumnes and Mountain Miwok cases. In addition he notes cremation for the Western Mono, Chumash, Esselen, Costanoan, Coast Miwok, Wappo, and Huchnom. He is in doubt as to the connection of the Modoc with the central area, but I think continuous distribution between the two points is clear.

Burial is the custom in the remaining sections of the Southwest and California, and throughout the Basin. In the Southwest it occurs among the Hopi, Navaho, White Mountain, Coyotero, and San Carlos Apache, Zuñi, Sia, Taos, Jicarilla, and Papago; in Mexico among all the tribes of Sonora and the Huichol.[5] In California it occurs in a well-defined strip of country separating the central and southern areas of cremation. This includes Chumash, Tübatulabal, and Chemehuevi,[6] to whom Kroeber adds Kitanemuk, southern Yokuts, and Eastern Mono. Burial appears again throughout northwestern California: Patwin near the Sacramento, Wintun, Yuki, Wiyot, Hupa, Chimariko, Yurok, and Karok.[7] Kroeber adds Tolowa, Chilula, Wailaki, and Sinkyone. North-

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[1] An offshoot of the Pah-Ute stock, living six miles east of Georgetown, Eldorado Co., according to Snyder (p. 358). This is in Southern Maidu territory, but the identification in the *Handbook of American Indians*, (II, p. 73) places them on upper Butte Creek in the Northwestern Maidu area.

[2] Powers, 169, 173, 182, 216, 226, 219, 222, 227, 241, 263; Barrett, (c), 436; *Fages*, 37; Hopkins, 64; Barrett, (b), 9; confirmed by R. H. Lowie, 1926; Barrett, (a), 280; Gatschet, (d), 29.

[3] Wükchumni and Western Mono data from Miss Ann Gayton. One informant told her that the Wasachi (the most westerly Mono) cremated long ago, but he may have been referring to Michahai Yokuts custom.

[4] Mason, J. A., (a), 167; Powers, 279, 349, 353, 356, 383, 427; Dixon, (a), 242-245; (c), 217; Lewis, (l), 261; cf. Yarrow, (a), 61; Dixon, (b), 465; Sapir, (d), 82, 194, 195; Mooney, (a), 250, (the material in this paper is open to doubt.)

[5] Hough, (d), 130; Curtis, I, 83, 90; II, 34; XII, 39; Yarrow, (b), 101, 111, 114, 123; Dorsey, (b), 127, 137; Stevenson, (c); Franciscan Fathers, 454; the Navaho buried the enemy (Mescalero) dead (Pattie, 167); Hrdlička, (d), 492; *Stevenson*, M. C., (a), 144; Goddard, (b), 270; Gaillard, 294; Russell, (a), 201; Hrdlička, (b), 90; McGee, 290; Lumholtz, (c), II, 242.

[6] Mason, J. A., (a), 166; Kroeber, (f), note 13; Heye, (b); Powers, 394; Kroeber, (l), 242.

[7] Powers, 216, 236, 240; Mason, J. A., (a); Dixon, (d), 332.

171 764 ward from here burial is reported: Tututni, Takelma, Alsea, Kalapooya, Lower Chinook, and Wishram.[1] Burial prevailed throughout the Basin, connecting these several areas by a distribution among Southern Ute, Gosiute, Paviotso, the Shoshoni of Owyhee River, the Paiute of Oregon, Wind River and Lemhi Shoshoni, Nez Percé, and Kutenai.[2] Yarrow states that the Shoshoni "in the upper portion of Nevada" never cremate yet elsewhere he cites the Nevada Shoshoni as sometimes doing so.[3] The Wishram also stated that the "Snake" (more probably Oregon Paiute) cremated.[4] This may mean that some Shoshonean group near the Klamath followed their custom.

As the data stand there are two separate areas where cremation exists, southern California with western Arizona and central California. It is conceivable, however, that these two are connected through southwestern Nevada, or even by the Eastern Mono, for our information that this widely distributed people buried is from one spot only. Cremation occurs far to the north as well, from the Shuswap to the Kadiak Eskimo and Yuntakutchin. But I have not found any evidence connecting this area with those to the south.

Cremation is also a pre-Columbian custom in the Southwest. I have made no attempt to use the archaeological evidence because the time-relations have not been worked out.

171 178 764 An interesting point arises in connection with the change from cremation to burial. This began in southern California, under Mission influence, yet in 1811 the natives at Mission Santa Clara (Miwok or Yokuts) still burned their dead;[5] it was known to the Diegueño as late as the childhood of Davis' elderly informants[6], and to the Mohave in 1890.[7] The Yavapai, newly removed to a reservation, changed their method under protest about 1875[8], and the transition period is set by the Havasupai during the second half of the last century. The question arises, was not the new practice of burial, begun or fostered by the Mission fathers, diffused as a native trait? There is also the possibility of Ghost dance influence in 1870. There is, incidentally, a suggestion of change in the opposite direction in a myth of the Southern Maidu.[9]

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[1] *Handbook of American Indians*, II, 807; Sapir, (a), 270; Farrand, (b), 241; Gatschet, (b), 86; Frachtenberg, 257. A burial in an unnamed tribe was witnessed in the Willamette Valley near the present site of Salem between 1862–5 (Anon., *Burial Customs in Oregon*.)

[2] Lowie, (f), 270–280; Yarrow, (b), 137, 154, 181; Simpson, 31; Hopkins, 70; Yarrow, (b), 142; Lewis, (a), 214; Spinden, 252; Chamberlain, (a), 289.

[3] Yarrow, (b), 142, 188.

[4] Information from Dr. W. D. Strong.

[5] Kroeber, (f), notes 13, 27, 64.

[6] Davis, (a), 94.

[7] Allen, 616. I have been told that it was common as late as 1910.

[8] Corbusier, 327.

[9] Powers, 348.

In a myth, told as a Yavapai tale, the corpse is poked with poles to 171
make it burn faster and Coyote steals the only unconsumed part, the 764
heart. This is not a Havasupai custom, but is recorded for the Diegueño, 773
who poke the ashes and heart, the Luiseño, who prod body and heart, "the last consumed";[1] while among the Southern Maidu, those of Bear River poke the corpse with poles and those of American River pass the last unconsumed lump from hand to hand.[2] At an even greater distance the Klamath use poles similarly and hold that the heart is the last consumed.

The Walapai mourning ceremony (p. 267) and the Mohave dance of 171
the Havasupai which is derived from it offer points of comparative 765
interest.[3] This ceremony is but one form taken by the widely distributed 769
Californian mourning anniversary. It is known to the Moapa and Shivwits Paiute, Walapai, Mohave, Maricopa, Yuma, Cahuilla, Diegueño, Luiseño, and the Indians to the north of them, Cupeño, San Miguel Salinan, Yokuts, Miwok, Yokaia Pomo, Southern and Northern Maidu, and Washo.[4] Presumably the Havasupai mourning introduced in 1919 is to be equated to these. In general this is a commemorative occasion at which the mourners weep, dance, and sing, the crowd is harangued, and much is made of the burning of clothing, food, baskets, and the like. Some of these tribes go further, burning images of the dead, namely Yuma, Cahuilla, Diegueño, Cupeño, Luiseño[5] and the Indians to the north of them, Yokuts, the Miwok on the lower Tuolumne River, the Southern Maidu south of the American River, and the Maidu of the Sacramento Valley and foothills when the dead are members of the Secret society or women of wealth and importance. I have no data for the northern Shoshoneans of southern California. But if they had the mourning ceremony there would be a continuous area of distribution.[6]

It is possible to suggest some relations of these ceremonies, provided 171
my interpretation of the discrepancies is correct. First, it will be noted 764
that these ceremonies are found only among tribes who practise cremation 765
universally or in part: they have in fact a similar though less extensive 769

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[1] Hayes, (a), 14; Davis, (c), 98.

[2] Powers, 239: "A long pole was used 'to scrape off the flesh'" (Faye, 37.)

[3] For the latter see above, p. 279.

[4] Lowie, (l), 279; Curtis, II, 52, 79, 83, 92, 114, 117; Kroeber, (a), 281; Allen, 615; Davis, (a), 11; (c), 96, 103; Trippel, 6; Hooper, 343; Kroeber, (g), 65; Du Bois, (a), 625 ff.; (c), 103, 105, 148; Sparkman, 226; Mason, J. A., (a), 160; Powers, 164, 331, 328, 355-356, 264 301; Dixon, (a), 243-252; Barrett, (b), 9.

[5] The image and clothes-burning are described separately by Sparkman (226) but not by Davis or Du Bois.

[6] This mourning ceremony is unknown to the Yana, Achomawi, and Shasta [Dixon, (b), 230], Klamath, to the Athabascans of northwestern California, Yuki, and Pomo, although among the last we must except the Yokaia on the basis of Powers' account [Kroeber, (d), 84; (e), 333; Powers, 164] and to the Southwestern Wintun [Barrett, (c), 430]. In Arizona it is apparently unknown to the Yavapai and Pima [Corbusier, 330; Russell, (d), 194].

171 distribution than cremation. The mourning ceremony is essentially a
764 commemorative repetition of cremation in which clothing and other
765 objects are burned. To be sure, this is not specified for the Moapa,
769 Shivwits, the northern neighbors of the Luiseño, Miwok, and Yokaia,
but our references to these are of the briefest.

It might be doubted that these ceremonies are the same since they
171 are held at various intervals. Many of them are referred to as occurring
765 annually (Walapai, Mohave, Yuma, Cahuilla, Yokuts, Miwok, Southern
769 Maidu, and Northern Maidu of the Sacramento Valley and foothills,
and the Washo). Other ceremonies, such as the Luiseño "clothes-burning" and the Salinan are held a year after death; that of the Northeastern Maidu one or two years after death, being repeated the following year; the Cupeño every five years for four or five dead or for all who died since the last ceremony; while the Mohave mourning occurs after a year or at intervals of several years. For some of the other groups we are merely told that it occurs shortly after death; a few days among the Havasupai, Maricopa, Salinan, and Moapa, and but a few months among the Yokaia and the Miwok when important men are concerned. I think it is obvious that, with the possible exception of those cases where the mourning follows on the heels of cremation, commemorative ceremonies in which the whole group participates which occur soon after the death of some individual would be described as recurring annually. The Walapai are a case in point; my information is that it may occur at any time, so Curtis is justified in stating that it occurs every year. In other words, it seems that with the exception noted these are strictly comparable. The real problem lies in what sort of group performances these are. Whether they occur only when there are recent dead to mourn or once a year and at a specified time, regardless of the occurrence of deaths, our scanty data fail to indicate.

The Diegueño, Luiseño, and Cupeño forms, all three image ceremonies, are held at intervals of several years. This is apparently evidence for the transmission of this trait. The Mohave and Northeastern Maidu too hold the mourning rites at intervals of several years, but this is due to their anniversary being held for notable men alone. Social prominence of the dead also figures in other tribes: the Maricopa and possibly the Yokaia Pomo hold the performance for prominent men alone, while the Miwok have a special ceremony for such a few months after death, and the Maidu (valley and foothills groups) then add the image burning for them. These do not seem significant similarities; simply that certain tribes have the commemoration only when notables die or they have special features in connection with such deaths.

Walapai and Yuma construct a shade for the occasion, which is 171
burned with the clothing or images; the Cahuilla and Diegueño burn a 765
house. The Luiseño also burn a house but it is not clear that this is a 769
specially built structure.[1]

The property of the Salinan that is to be burned, like that of the Maidu and some of that of the Yuma, is hung on poles. The people north of the Luiseño erected a pole with baskets at the top to be reached by climbing; it is not stated that this is burned. This suggests the Havasupai pole-climbing introduced as part of the Ghost dance (p. 265).

In brief, to suggest the development of the mourning ceremony, it is 171
based on cremation; essentially a repetition of that practice. There is at
least a tendency to make it a regularly recurring commemoration, but the 178
Maricopa, Mohave, Yokaia Pomo, and Northeastern Maidu have taken 764
it over for use only in connection with their important men, and the last 765
two, like Diegueño, Luiseño, and Cupeño, have confined it to longer 769
intervals. The Miwok have elaborated by giving a special ceremony for important men, but the chief elaboration in the area is the addition of the images. That these were added to a previously diffused clothes-burning ceremony is probable: else why the burning of both clothing and images where the images occur? It is not possible to say which group first made images, but we note that those of the southern Californian tribes are more realistic.

I am assuming that this ceremony is not related to certain obser- 171
vances which occur further north, although this is a possibility. A 765
periodical lament, particularly for dead chiefs, occurs in the early spring 769
among the Sahaptin at Priest Rapids on the middle Columbia River. The Shuswap have a feast on the grave a year after the death, while the Upper Thompson re-bury the bones of the wealthy yearly. (Re-burial
is frequent in this area.) Carved images of the dead are erected on the [764]
graves by the Upper and Lower Thompson, Lillooet, a people near the Cascades of the Columbia, and some on Puget Sound.[2] These cases are more likely to be special forms of grave post such as are commonly erected by Northwest Coast peoples than images of the Californian type. Yet it must be kept in mind that these occur, at least in part, in an area of cremation also.

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[1] Davis, (a), 199, 198 ff.

[2] Mooney, (b), 728; Ross, (a), 642; Teit, (a), 329, 335; (b), 271; Gibbs (1877) does not make it clear whether the Puget Sound Indians [illegible] effigies or carved them.

INDIVIDUAL DEVELOPMENT

Birth Customs

162 Havasupai families' averaging 4.7 persons, include roughly as
many children as our own. Girls marry soon after reaching maturity
582 and conception soon follows. Intercourse is not uncommon prior to this
836 time, but illegitimate births are said to be extremely rare. Yet in at
848 least one instance such a birth did not hinder subsequent marriage.

No preference is expressed for either sex, nor do they claim to control
842 the sex of the unborn child. However, by way of forecast, someone
[787] visiting the prospective mother will make string-figures which may
resemble either a boy or girl.

For a month before the birth the woman and her husband must re-
843 frain from meat, and the woman alone from very salty foods. These
746 taboos are relaxed a month after delivery, when hemorrhages cease.
Should she ignore them there will be complications. During this time
she must use a stick to scratch herself.

843 The child will be left-handed if the woman uses that hand much.
827 Should she hear a hawk (*ádjúdá*) cry, her child will have the hawk's
753 spirit, which will cause it to sicken.

When a woman thinks delivery near, she calls her relatives. In one
844 case observed, a young girl bearing her first child was closely watched,
accompanying her mother everywhere. The mother assists the delivery, squatting behind the seated woman, clasping her hands above the abdomen and pressing downward. As this manipulation nears success, a husband, father, or brother is called on to assist with pressure applied to the front and sides. A hole has been dug in front of the woman to receive the child, in which a blanket has been folded in nest-like form. The umbilical cord is immediately squeezed and tied tightly an inch from the body, and then cut. Pressure is applied to the abdomen to cause the ejection of the placenta. This is buried deeply so that animals cannot eat it, for should they do so, the woman would become barren. The woman then stands erect to have a broad woven Hopi belt bound tightly around her abdomen in order to force out the fluids. Should this be neglected, they will flow into the top of the womb, causing death. Her mother washes the woman's hair and body with soapweed lather. Her husband has prepared a hole filled with hot stones outside of the house, or within it if it is winter. A bed of damp sand covered with old clothes is prepared on this; the woman lies face down, and is completely covered with blankets. The purpose of this is to continue the flow by heating

the abdomen, and to this end her mother continues to press it. She 844
is given a little soup, prepared from dry corn, if she wants it. This procedure
is repeated on the three subsequent nights. Her husband, too,
bathes four times. Sometimes delivery is difficult, labor lasting three
days or even four. Then everyone is told to come and advise what
course to take. A woman who has a good delivery returns to her tasks 846
after one night; if it has been difficult she can work after four days.
Her husband, however, is not prohibited from working.

Twin births are rare and multiple births have never been heard 845
of. Monsters are unknown. Three instances of twin births were recalled
by my old informant: Pakádagó'ová, now a man of sixty; twin
sisters in the past generation; and a pair now dead, were born to a
young woman.[1]

Twins (*huwágïdjá*) differ from other children only in the sympathetic
bond that unites them. If one sickens and dies, the other will also.[2]
Pakádagó'ová's twin sister was destroyed at birth; wrapped in a blanket
and buried. To indicate the efficacy of the custom, my informant pointed
out that the survivor has lived to be an old man. In this case he did
not know which twin was born first, nor why the girl was selected. It
is believed that twins are due to the circumstance that the pregnant
woman, before the foetus is well-developed, lies first on one side, then
turns quickly on the other, thus splitting the "fluid" in two parts.
Intercourse during pregnancy does not cause this, yet such relations are [843]
improper.

The old women attendants mould the head and face of the new-born [844]
child lightly with the finger tips; point the chin, pinch up the bridge 856
of the nose, pull down the ears, press up the hard palate, and rub the
thumb along the gums. They repeat this whenever the baby is washed,
straightening the body and limbs, and unclenching the fists. No [304]
intentional deformation is practised. Occipital flattening occurs but
rarely, and that little is moderate and presumably accidental.[3]

Contraceptive devices are unknown. Some women are barren 842
(*pĭk'igĭθaiádj*, barren woman—used contemptuously): it is not known
why. One does not pray for children, but a young girl who is barren
may drink a decoction of ground abalone shell in water. The shell [439]
(*hŏlkáí'ŏ'pá*) is obtained through the Mohave. The lines on it represent
the ocean waves.

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[1] The ratio of twin births among whites is 1:89.1 or 92.1 (Zeleny, 262). If the death rate for twins is [163]
no greater than for others, we would expect to find only one or two living in a population of 176.

[2] A Paviotso belief [Lowie, (i), 296].

[3] Hrdlička, (f), 83 records one instance among twenty-five individuals.

853 The child is put to breast two days after birth. He is not fed
during the intervening period.

The cradle is made by the expectant woman's mother or grand-
854 mother before the child is born. The baby is placed in it as soon as he is
washed. It is bedded with a little Hopi blanket on which cedarbark,
[439] rubbed soft, is heaped; after the infant is put in position with his arms
at his sides, more bark is heaped on, then the blanket is wrapped tightly
about him. Infants are kept in the cradle most of the time until they are
able to walk. On the whole, a woman does not carry the cradle much on
her back, but more frequently in her arms, in which she resembles the
[171] Pueblo woman.[1] This is probably due to the sedentary life she lives.
The only reason assigned for the use of the cradle is that it has always
been the custom. "If the baby is not placed in the cradle, he may move
about and, turning on his face, suffocate."[2] The hoop is designed to
prevent this calamity by keeping the mother's blanket off the infant's face
and to save him from injury in case the cradle falls. Evidently a larger
cradle is made when the infant grows, since one specimen seen, much
smaller than the others, must have been that of a young infant. The
cradle is kept for the next child when its use is finished. If broken, it is
[842] thrown away, not burned, because that would cause barrenness.

The cradleboard consists of an oval frame with nearly parallel sides, across which small sticks are closely spaced except at the rounded ends. The frame is made of two U-shaped rods, with their arms nicely trimmed and lapped. These pieces are green branches which are bent, tied, and buried in damp sand to set in the shape of a U. The cross pieces are placed as close together as possible, being bound to the frame by a continuous strand of sinew or buckskin which passes once diagonally over the end of each cross stick. The whole wrapping is liberally daubed with piñon pitch. A strip of cloth (buckskin?) is laid along each side of the frame to cover this wrapping. This is held in place by the tie loops, buckskin thongs, which are always four in number. Two broad tying bands are used: one tied to the uppermost loop, the second to the third loop on the same side. These are tied as shown in Fig. 55. The carrying strap is a broad band, sometimes a Hopi or Navaho woven belt, fastened to the frame one third of the distance from the top. Not all cradles have such straps. The hoop is a broad wicker band. It is made with about forty slender twigs for warps which are bound side by side

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[1] I have not seen children carried astride on the back by women nor astride on the hip.

[2] Also for the Papago and Pima the cradle is not primarily for transportation but for the infant to sleep in (Kissell, 148).

854 at one end. The weft consists of two or three slender twigs which are first passed together under alternate warps; each end is then brought back and passed under the other warps, and so on. The other ends of the warps are similarly bound side by side with sinews, and the ends of the hoop are then lapped and bound together. The hoop is tied to the frame in the open space at the top and also to the upper cross sticks. Two stay cords extend from the center of the upper end of the frame to two points on the hoop.

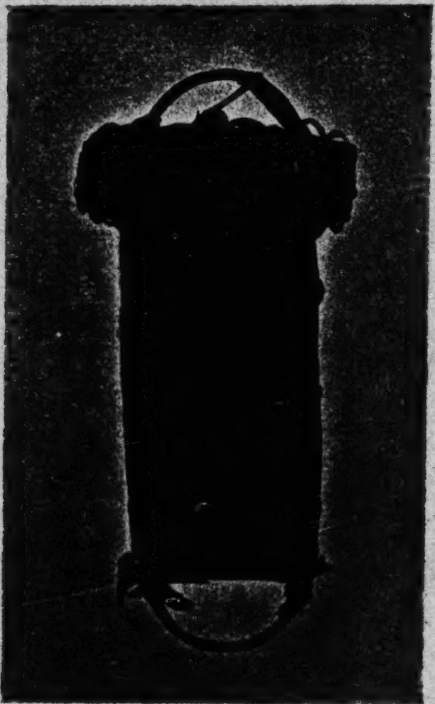

Fig. 55 (50.2–1216). A Cradleboard.

[531] Dewclaw rattles are sometimes fastened to the hoop. In modern examples a string of beads, blue and white in alternate lengths, is tied back and forth diagonally on the periphery of the hoop. The baby's first

The baby's first

854 [852] [827] thin hair is sometimes clipped off and tied in cloth in little bundles which are swung from the hoop. This is so that the hair will grow thick; if these were thrown away the hair would not grow. When the end of the [846] umbilical cord drops off, it is similarly wrapped and hung on the hoop. [732] If it is lost or thrown away the child will grow up idiotic. When at last 856 the child can walk, the dry cord is ground to a powder which is smeared longitudinally around his body from head to crotch and up the back to the head. This is done so that the cord will not be lost, i.e., it is returned to his body so that he will always have it. Mothers object somewhat to [531] selling these articles with the cradle. The ornamentation of the cradle does not differ for boy or girl.

262 853 The parents of infants must exercise a number of precautions. The new mother must eat only corn soup in order to have a free flow of milk. Corn or bean mush is far too mealy. Similarly salt will dry up the flow; for salt on the ground makes it hard. And if her husband eats meat the woman will be harmed just as though she had partaken. Although 262 mountain lion flesh is sometimes eaten, it cannot be eaten or even touched [753] by those who have babes in arms, for the latter will pine, their eyes sink in, their bellies ache, and diarrhoea ensues. This also applies to the flesh of a deer slain by a mountain lion. The parents of crawling children do [856] not kill snakes for fear that the child will resemble the snake, i.e., not be strong enough to walk at the proper time. Infants are not permitted to [753] eat salt; it would cause white sores on the tongue.

854 No special prayers are offered for the growth of a child, nor is any reason assigned for the growing process, it is so "just because the child suckles and eats." A fretful nursing infant is given an adult's finger to suck. Weaning is begun when the child can walk a few steps unsupported; 862 when it runs alone, the process is ended. During this period the child is given a little of everything others eat (and it includes a vast array of indigestible foods!) for there are no special foods for weaning.

NAMES

551 Havasupai names are freely used in address or reference: they have no special emotional or religious significance. They are even told to strangers without much hesitation. This seems to be a corollary both of their insignificant character, for they are mostly nicknames or meaningless words, and of their being labels casually given by others rather than names assumed. Undoubtedly this common use of names accounts in [601] part for the imperfect usage of relationship terms, to which I have referred. They do not like to name the dead, relatives or others, but their

hesitancy is easily overcome. This distaste applies more particularly to 551
close relatives: still there is none of the abhorrence manifested by an Apache or Navaho against the mention of his dead. The usual circumlocution is Manakadja's grandfather (*mŏndkădjá nᵤĭnapŏ'ĭdj; nĕpŏ'igá*, father's father) or Panimida's dead father (*pănamĭ'dápŏndĭaladj; djĭtaligá*, father). The word *nidjĭ'sĭmalĭgá* means to hear the name of a dead relative spoken.

Infants are said to be named when they begin to play about and 553
take an interest in the world, that is, at about one year. I find however that not a single child of one or two years has a name, only three boys of three are named, and every boy of five, and even one of seven, lacks a name so far as my informant knows. Evidently the need of a name 551
awaits the creation of a personality even more than my informant believed. I do not know how these children are addressed, but they are 553
referred to descriptively. Names are said to be given for some personal peculiarity or happening. They are given by grandparents as a rule, [603]
perhaps those with whom they live, rather than by their parents. Names are not family property; in fact they seem to be freely invented. Sometimes the child is re-named when it reaches maturity. Men are very commonly re-named in reference to their marriages, but women are not. For example, if a girl refuses a young man's advances, fights him off, or pours water on him, someone may give him a nickname in derision. New names are often casually given both men and women in later life. Sometimes a person will conceal his name from a foreign Indian, inventing another on the spur of the moment.

I have obtained the names of all Havasupai with the reason currently 115
given for their use and their derivation according to Jess Checkapanyega. 551
The meanings are certain only where there is a tale to account for the name. I suspect that in many cases Jess analyzed the words where it could not be legitimately done, because such peculiar compounds result as *wavaskwimá*, house-standing, which is "just a name," for it does not mean standing house according to him, but is simply the coupled words for house and standing. In other words, these are probably meaningless 551
names. All words beginning with *wa* and *wi*, supposed to be *háwá*, house, and *awí*, rock, are in this suspect class.

There are no marked sex differences, but somewhat more women have names referring to vegetation. Hat, house, and rock names are peculiar to men. Many men's names begin with *pa*, for *ápá*, man: since this type of name is restricted to men (with a single exception) the meaning may be "man who—" or "man with—", but I have preserved

551 the translation given me in each case. Women's names, on the other hand, rarely contain words for girl or woman. Half of all the names refer to personal characteristics, often quite indirectly. Arranging the data according to approximate ages brings to light some interesting points. The names of half the women under forty years relate to personal peculiarities, only one third above that age do, but there is no such distinction among the men. There are a greater number of men over thirty years with house and rock names, and a greater number of women over forty with vegetation names. Such differences may mean either that there are names appropriate to a particular age or that fashions in naming have varied at different periods. I cannot decide between these explanations, because, while men's names are changed, so that an agreement between the type of name and age is possible, this is not true for the woman, whose names are supposed not to have been changed except in a few cases. The inconsequential character of names is indicated by the number of school children who lack native names; evidently the English names they acquire at school are considered good equivalents of the meaningless names of the others. The names of foreign women married to Havasupai are appended. At least one of them has been re-named by the natives: the names of others may have undergone slight phonetic changes.

MALES

Approximate Age	*Name*	*Explanation*	*Derivation*
3	gwawá'iyü'l, hair like a rope.	Named when 3.	gwawá, hair; iyü'l, rope.
	yugátá'ëënyágová, eyes on a thread.	Only the central portion of his eyelids were parted when a baby.	yu, eyes; tá'ëënyágová, the connecting filament of something worn nearly in two.
	lü'neo	Possibly Spanish; named by a foreign Indian.	
7	g'iyü''ë, shaman.	Looks like a shaman; does not behave, hollers, sings; runs about, strikes people. Named when 7.	
	yug'egálëba, dirty eyelashes.	His eyes were sore when an infant.	yu, eyes; g'egá, dirty; lëba, eyelashes.
	bu'', hallooing.		
	äkä	A Walapai name.	

MALES (Continued)

Approximate Age	*Name*	*Explanation*	*Derivation*
8	hwan	Spanish "Juan"?	
9	bulatévà, bump on forehead.[1] hatévà, projection.	Which he had when little.	bula, forehead.
	putgiakwī'djvà, hat sticks up.		put, hat; akwīdjvà, sticking up.
	hʷa'mu kögwö'öà, yellow-skinned Navaho.	Father's English name is "Navaho."	hʷa'mu, Navaho; gwö'öà, yellow.
12	ᵃbé, wheat		
13	pakakinigéná, punching man		ápa, man; akinigin, to punch repeatedly.
15	padjilovà, man with nits		ápa, man; djil, nits?
16	amakwápitá, sagebrush	Named when 16.	
	bánö't	English "Barnet"?	
17	kökwöt, fox.	Once he killed a fox by striking it on the head with a stone.	
	gïtcápalivá, talus slopes on both sides of a canyon.		
20	pagágwinᵃ, caterpillar man	Had no native name before he was named thus by his wife's relatives when 19.	ápá, man; gágwinᵃ, caterpillar. [553]
21	nágá, or nágová		
	pagátaiá, old man	His hair is somewhat gray.	
	vúin		
	watágë'gimá, house pushed off.		háwá, house; tágë'gimá, to push one thing off another.
22	watöl'útimá		háwá, house
23	mágwöθà, a small rock-squirrel. hë'ëlgádjidjgiw', he bites lice.	Usual name: before he married, he once picked lice from the girl's hair and cracked them between his teeth	hë'ël, lice; djidjgiw, bite.

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[1] Bracketed names are those of the same individual.

MALES (Continued)

Approximate Age	*Name*	*Explanation*	*Derivation*
25	tamágwĕ, rear end, back.		
	duládúlámá. he moves his feet fast (?).	When a fat baby, he toddled about at a run.	
27	djäsdjäsgámbädá. blue-jay legs.		
	hugul'igambädá, crane legs.		gul'ígá, long; mábädá, legs.
	putágiðána, bat-lizard.	Boyhood name.	püt, bat; giðána, lizard.
	badigälápá, crushed leg.	A horse fell on it.	mábädá, leg.
	djóla, limp.	When a baby he was too heavy for his strength and always toppled over.	
	gᵊtcisá	When a little boy he was troublesome like an unidentified eastern tribe of this name.	
28	käptá	English "captain": both names commonly used.	
	patákō, man's belly.		ápá, man; táko, belly.
29	ya'kwáwá, dumb.	Could not talk plainly until he was a big boy.	ya, mouth; wáwá, sounds representing mumbling.
	θápálágigávávа, I want peaches.	Usual name.	θápala, peaches; kávávа I or he wants some.
	sük'üvédjvá, make a noise.		
	pagahwaiá, quarrelsome man.		ápá, man; hwaiá, to feel like fighting.
	kwaiyál, stone arrow point or knife.		
30	lámá, spread out.		lámigá, to spread out.
	patágüvataiá, fat legs.		mábátá, legs; vátaiá, big, fat.
32	wigátú, blasting rocks.		áwí, rock; gátu, blasted.

MALES (Continued)

Approximate Age	*Name*	*Explanation*	*Derivation*
34	hallsōkii'ápá, wet (with emissions?)		
	θaíᵗmá		
	auraívá, Oraibi.	He was taken there frequently when a boy.	
35	tōkwamgàtōlaíá, lizard (a variety found on the plateau).	Usual name.	
	gwō'lová, having wings.		wō'lā, wing.
36	dᵘvá, tobacco.		
39	gàtó, belly-full.		
	sōlgàman'ō'dá, wrist.	Usual name; his wrist once swelled.	sōl, hand; man'ō'dig, knob, wrist, ankle.
	gàlógàvàsudjá		
39	ovádá, flame.	Usual name.	o'o, fire; vada, fire leaping up.
	smatogudíná, thick ears.	Boyhood name.	smadigá, ears; díná, thick.
	málgúlo,———sack.		ᵉ'mál, sack.
	sáfhóvá, a streamer moving in the air.	A bird was carrying a snake pendant as he flew.	[mid vigá, the air (a little way up); mia-hō'lā, the sky.]
	wasáhúgámá, pucker-house.		háwa, house; húwigá, to close a hole or bag mouth by drawing into puckers.
	pawaigádúvá, thin man.	Usual name: he has consumption.	ápá, man; gádúvá, thin, lacking flesh.
	nʏagádjáᵃwí'nvá, black-bend down.		nʏágà, black; djáá-wí'nvá, to bend down.
	gitā'tá, porcupine.	Once when hunting all he caught was a porcupine: also, he looked like one, with vestiges of whiskers.	
42	pútcilvoíá, woman chewing his hat.		pút, hat; tcilvoíá, chewing.

551

MALES (Continued)

Approximate Age	*Name*	*Explanation*	*Derivation*
44	núdě		
	hualkámpŭ'dá, wooden legs.	Used crutches when he broke his leg a few years ago.	huál, pine tree; mábada legs.
	pan$_y$ágwalá. shabby man.	Usual name; always wears old clothes.	ápa, man; nigwalá, shabby.
	n$_y$maigámányá, soft breasts.	Before his first marriage he felt the girl's breasts and told some other boy they were soft.	n$_y$ámalá, breasts; mányá, soft.
	pagátalá, old man.	Usual name.	
	djinyáhō, head hanger.	When he was a small boy, he went about with hanging head.	djinyahágá, to hang one's head; hu^u, head.
	mătdyá		ámăt, dirt; tdyá, nothing.
44	suwí'mim	Boyhood name; perhaps given by a foreign Indian.	
	smadigádŭ'tcá, deaf.	Usual name; he is hard of hearing.	smádigá, ears; dútcá, not to hear well.
45	wavaskwimá, house-standing.		háwa, house; skwimá, (a living thing) standing up.
47	payá, man's mouth.		ápa, man; ya, mouth.
48	pasmádigá, man's ears.	Usual name.	ápa, man; smádigá, ears.
	tămócvá, to slide over the edge of a bank.		
49	pagatóc, short man.		
	tiláwisá, knob on the end of a stick.		tegŭluisigá, knob on end of a stick.
	wódo		
	wákágámá, creaking house.		háwa, house; kágamá, creaking noise.
[302] 54	gŭdókóvá, knot of back hair.	He was the only man to retain this when the agent induced them to cut their hair short.	káwáwa, hair.
	apáyukăinya, blind man.	Usual name; went blind recently.	ápá, man; yu, eyes; inyág, black.
	waskŏ'goma		háwá, house; skŏg, to force the beans out of green pods.

MALES (Continued)

Approximate Age	*Name*	*Explanation*	*Derivation*
55	matamá, salt-lick (for cattle).		
59	pūᵘt, hat or headband.	Usual name.	
	yävinyämí'käswëdová, long beard.	Which he has.	ya, mouth; nyämi, beard; swëdová, hang.
	kásá'dá, left (hand).	Usual name; he is not left-handed.	
	pagovätá, large man.		
64	köndaká		
	teškápánigá, bat.		
67	mikí'tá, ten cent coin.	Usual name: he said he paid ten cents for a woman at Jerome, but he is not believed.	
	pänhämidá, man feels glad.		ápá, man; nähämidá, to feel glad over success after loss or famine.
69	kwalyoiyá, gold teeth.	Usual name: he was the first to have them.	kwä, metal; yoi, teeth.
	götígö'má		
	wímaiá, little rock mountain.	Former name.	áwí, rock; maiá, pile, mound.
	manágadjá, leader of his children.	So named when he became head chief about 1900.	hamáa, children; gpadja, leader of men.
	pūtgahämí'i, high hat.	Usual name: he used to wear a high-crowned hat.	pūt, hat; hamígá, high.
	watáhómidjá, stripped-house.		háwá, house; tahómidjá, to strip off (leaves, excess water, etc.)
71	ákoköbá, Hopi word for "like an Acoma"?	Boyhood name: when a boy he was often at Oraibi, where the Hopi said he looked like an Acoma.	
	sinyū'lá, to part by a forward movement.		ᵃmátsinyū'lk, to plow, to furrow the dirt.
	tahawígá, two wives.	He once had two wives.	tahawígigá, to have two wives.
	högápídá, diarrhoeal.		

MALES (Continued)

55/ *Approximate Age*	*Name*	*Explanation*	*Derivation*
74	paigiyo", all cleared away.	Usual name.	
	pakádagó'evá, he bumps against a man.	Once when entering a house at night, he had his head lowered and bumped into a man.	ápá, man; tagóvá, to bump into something.
79	smadigátá, half deaf.	He is quite deaf.	smadigá, ears; tu, something inside.
	bainyá, black man.		ápá, man; inyágá, black.
83	wigitdyá, (break off?) a fragment of rock.		áwí, rock; tiya, nothing at all.
93	wasamáma, lost-house.		háwa, house; sámáma, lost.

FEMALES

4	gwaθóm'θ'da	A Walapai name.	
5	hamoiyá		
7	haiθ'ó		
	gisináva, three strand braid.	Wears her hair this way.	
	bül'θä'vádiá.iá, white pimples on her forehead.	These were never present.	bül, forehead; θä'vá, white; di'ia, pimples.
	guágocikáwá, chicken eggs.		kuágo, chicken, sikáwá, egg.
8	käθü'tvá, big and flabby.	Formerly characteristic.	
	hödjila, nit.		
9	mátdgá, "woman" in Paiute (?).		
10	wátä, buttocks.		
11	haniyóká, onion.		
	bí'nä, raccoon.		
	uwö', mouse.		
12	mätik'ówsutá, swollen neck.	Used to have swollen gland under angle of jaw.	mätik'ó, neck; swautá, lump, swollen.
13	gaálaiä, angry.	Formerly she was always angry.	
	nakuví	Named by a foreign Indian.	

FEMALES (Continued)

551

Approximate Age	*Name*	*Explanation*	*Derivation*
14	mĕsi'mĕ'k'à, tall girl.	She was tall when born.	mĕsi', girl; mĕ'k'à, long.
	kaθídà, left hand.	Is left handed.	
	θwī'ngà, lame (?).	She is lame.	
15	yúkádjilhópà, eyes deep set.		yu, eyes; djilhópà, deep set.
20	ót'g'à		
22	ya'álaíà, chatter-box.	Eminently characteristic!	ya, mouth; laíà, to chatter.
23	yukāinyá, half blind.	She is nearly blind.	yu, eyes; inyág, black.
26	auwīgàlóvà, grandchild not good.	When her daughters were small, they misbehaved: probably named by her parents-in-law.	auwiga, son's children; kàlóvà, troublesome.
27	djà'kádjà'kà, dovetailed, interspersed.		
32	sutaheándjĕ, blue round spot.		vasúga, blue; heánidjà, round spot.
34	yugàtoskeī'govà, cock-eye.	One iris points upward.	yu, eyes.
	tiθē'k'idjĕ		
35	kágiĕ'govà, sores all over body.	But she never had them.	
36	tàhótà, something concealed.		
39	táθámódjĕ		
41	toyávà, uneven, lame (?)	One leg is longer than the other.	
43	θákwī'midjà		[átakwī'má, to move one thing gradually toward another.]
44	sutĕidùidjà		vasúgà, blue; síwà, unripe (green) color; talúidjà, to nudge.
49	dàsdjigvà, bolt upright.		
50	djĕrdwaimo, a round thing.		
53	gwowálovà nymaívà, usual name, white winged bird. dji'igā'svā, boundary of hair at nape of neck.		gwo, bird (?); wálovà, with wings; nymaívà, white.

551

FEMALES (Continued)

[768]

Approximate Age	Name	Explanation	Derivation
54	suėdjö'gĕdjă, green, to pile.		suwá, unripe (green) color; djágĕdjdá, to throw or pour things into a pile or receptacle.
58	dĭsk'ĭdivá or g'ėdivá, marked with lines.		
	tcahapdínyá, swelling on body.	She has none.	
	kamwi'dimá kápū'divá, old woman wearing a hat.	New name, 1919, after the death of her husband	kámwi'dima, old woman; pūt, hat.
59	iyáwalyū, heart.		
60	gwagwūgwaiá, (a human) moving about quickly.	Usual name.	
	pahádjá, pile of brush, sticks or hay (not stones).		
	kámwi'dámgyagyúlá, tall old woman.	Usual name.	kámwidimá, old woman; gágyúlá, tall, long.
	yăkobō'má, protruding upper alveoli.		ya, mouth; bōmá, protruding (upper alveoli only?)
70	tăskámálaúwá, tripod of poles.		
75	sĭhwïlgĭdi, rough.	Usual name?	sĭhwilga, little points
	tăkaúridjá, mixed up into something round.		[kaaudig, to mix up and make round.]
79	ămú, mountain sheep.		
	sū'ú dīvá, green things at intervals.		súwá, green, unripe; údigá, round things set at intervals; [díligá, to string beads.]
83	dasoitcūvá, a little stream (of sand or water).		ahasoidjigá, water streaming down.
85	siyúkijá		siyúigá, to place close together.

FEMALES (Continued)

551

Approximate Age	*Name*	*Explanation*	*Derivation*
90	hokumá or bokumá, to eat piñon nuts.	Usual name.	ho' or bo', piñon tree or nut.
	mádjigaidjá, unripe things floating.		sáwá, unripe; djigaidjá, material covering the surface of water.
94	djisal', eagle.		

FOREIGN WOMEN.

563
551

Approximate Age	*Name*	*Explanation*	*Derivation*
22	kiᵘdá.	Yavapai name.	
35	sísal'dádjá.	Walapai name.	
40	djad'layámá.	Walapai name.	
	gátámyáddvá, tattooed.	Yavapai; she is far more tattooed than the Havasupai.	dámyáddvá, face paint, tattoo marks.
60	pagidjabáda, chewing a man.	Walapai: usual name; she said when a girl, "When I grow up and a man comes into my bed, I am going to chew him up"—she married shortly after.	ápa, man; djulmyaligá, to chew; gabáda, tough.
	sámyákidjá, to pull with the hand.		sál, hand.
70	oladwá, (fire) coal.	Walapai	

COMPARATIVE NOTES.

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854

The forms of cradleboard are shown diagrammatically on the accompanying map (Fig. 56). The flat type is used throughout the Plateau-Basin and Southwest, the sitting type in California, as among the Pomo, Hupa, Shasta, and Klamath-Modoc (who also use the flat board),[1] and a trough-like affair to the northwestward. The relations within the area are not clear, but it appears that the prevailing pattern is an oval or elliptical outline with local variations. The oval forms are more frequent in the Basin-Plateau; the elliptical in the Southwest. Three structural types are used; the board is made of a single piece of wood, a hoop is provided with transverse or longitudinal bars, or the longitudinal reeds are joined by open twining. The structural basis bears no strict relation to the form.

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[1] Mason, O. T., (a), 519–521; Dixon, (b), 434; Barrett, (a), 237. Field notes on the Klamath, 1925

[Text continues on p. 317]

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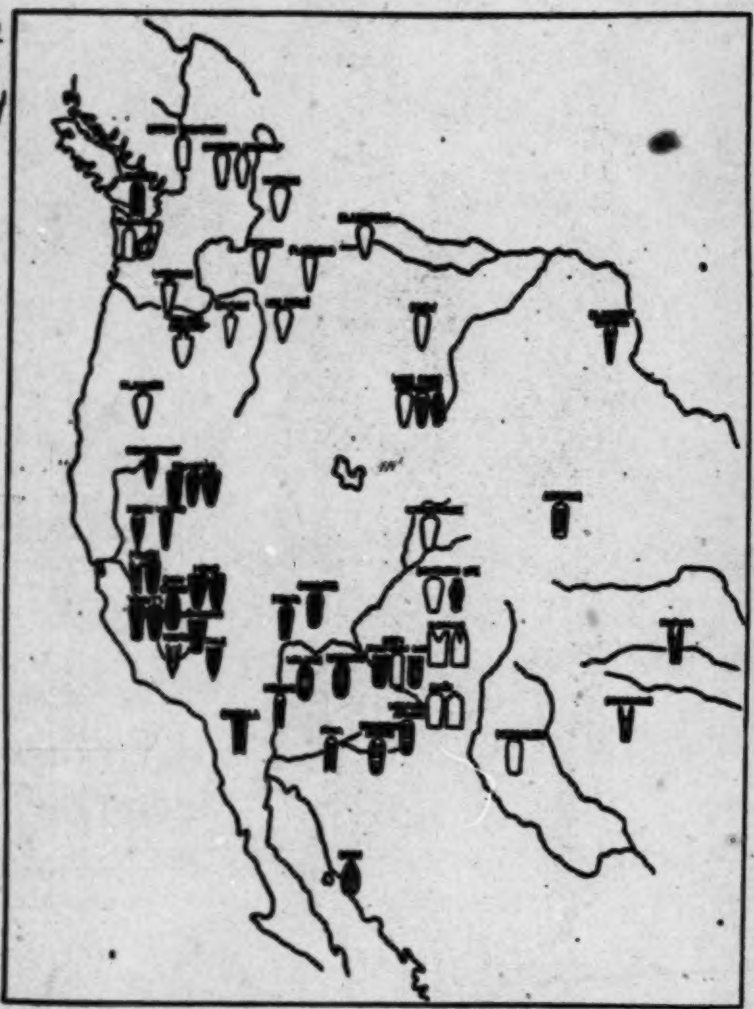

Fig. 38. Distribution of Cradles in the Southwest and Basin-Plateau Areas. Californian sitting cradle and Northwest trough form omitted.

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The Havasupai type is an elliptical hoop with its long sides nearly parallel, crossed by closely spaced transverse bars. This type is also used by Walapai, Western Apache, and presumably the Seri.[1] The Mohave and Pima have a variant, a U-shaped frame which might be construed as the elliptical form with only one bow. The cross-sticks are lashed at wide intervals but still transversely. The sides however taper toward the bottom so that the board approaches an oval outline. A crude Cahuilla specimen with two longitudinal sticks similarly crossed by splints is of this type. One Miwok specimen is essentially the same; the flat splints are set close together and the ends of the side bars rise over the infant's face.[2] One Wind River Shoshoni form is of the Havasupai type, but it has the oval outline which prevails in the northern half of the area.[3] The Arapaho have a cradle of the same shape made of a framework of sticks, but it is not stated in which direction the cross-rods run.[4] Another variant appears in Round Valley, Pit River (northern California), and in one Konkau Maidu specimen. This is a single bow with the ends brought together; in outline oval above and ending in a point below. This is crossed transversely by slats.[5] It is possible that these, especially the Round Valley form, are related to the Pima, Mohave, and Moapa types. The Salinan type is described as two sticks crossed by smaller sticks: this sounds like the Cahuilla specimen. It is clear that this is at least the flat cradle, not the sitting type of northwestern California.[6]

The elliptical type is quite old in this area. Two specimens of Basket Maker age, the earliest culture now recognized in the Southwest, from Grand Gulch (?) and the middle Chinlee Valley, are of this type. The latter is rather oval. Both have longitudinal rods in a medial position in addition to transverse rods. The arrangement of the rods suggests the Mono-Yokuts-Wükshumni specimens.[7]

A peculiar type of Californian flat cradle is a forked stick set with transverse rods. In the Yokuts form tule reeds are placed longitudinally as well (practically a tule mat). O. T. Mason figures a Tule specimen like this with both longitudinal and transverse rods. The Maidu cradle is a forked stick with the arms joined at the top to form a bow. The cross sticks in this are small and set close together. This form approached the

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[1] Mason, O. T., (a), 520; (b), 193; Hrdlička, (d), 498, Pl. 22; McGee, 277.
[2] Univ. Calif. Anthro. Museum specimens 1-13014 and 1-10065.
[3] Mason, O. T., (a), 534-5; Curtis, II, 38, after 77; Russell, (d), 168; Lewis, (a), 180.
[4] Kroeber, (b), 67-8.
[5] Mason, O. T., (b), 189.
[6] Mason, J. A., (a), 121.
[7] Kidder, pl. 39a; Mason, 25, pl. vb.

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Round Valley and Konkau specimens, and suggests that this whole group may be looked on as a variant of the Havasupai type described above.[1]

The Basin form is commonly an oval frame set longitudinally with reeds united by open twining. This is found among the Shivwits, in one Paviotso form, and possibly among the Wind River Shoshoni. Among the Southern Ute and in one specimen of uncertain derivation, but probably Wind River, the reeds extend at each end beyond the frame. The Moapa have this Shivwits type, but like the Mohave and Pima the frame is a U-shaped bow with converging ends. The Paviotso variant has the framing hoop in the form of a quadrilateral tapering to the lower end. Mason figures one extreme form of this in which the lower end is so narrow that the board is quite pointed, resembling the Californian types mentioned above.[2] The same quadrilateral occurs with variations among the Washo, Mono (probably both divisions), Miwok, Yokuts, Chukchansi, and Wükchumni.[3] Transverse rods, small and very closely set on the back, also appear on some of the more southerly specimens: Mono, Yokuts, and Wükchumni. (Similar cross rods are seen on the Maidu examples mentioned above.) These Californian types are practically basketry structures: they have no frame or at most a very light one. The quadrilateral cradle with longitudinal rods is then a local type of the San Joaquin-western Nevada district.

In the northern part of the area the cradle is a single piece of wood, a board, of oval shape. This is the type of the Upper Thompson, Eastern Shuswap, Okanagan, Spokan, Nez Percé, Klamath, Flathead, Kutenai, Crow, Blackfoot, Wind River, Uncompahgre, and Southern Ute.[4] In the first three and the last, the lower end is square, not rounded, and some of the Shuswap specimens are angular rather then oval, but these all seem variations of a single type. So much of a Cayuse specimen as is shown in one of Curtis' illustrations shows it is essentially the same shape, but I do not know whether it has a board or basket foundation. A specimen collected by the Wilkes expedition among the "Oregon Indians" is clearly related to these although the upper part has angular shoulders.[5] The

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[1] Dixon, (a), [illegible]. Univ. Calif. Anthro. Museum specimens 1-[illegible], 1-[illegible], and 1-[illegible]; Mason, O. T., (a), [illegible].

[2] [illegible], (i), [illegible]; Mason, O. T., (a), [illegible].

[3] Barrett, (b), 21, Pl. XII, Fig. [illegible]; Univ. Calif. Anthro. Museum specimens 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible], 1-[illegible]. Wükchumni model in the possession of A. H. Gayton.

[4] Teit, (a), [illegible]; (c), [illegible]; Mason, O. T., (a), [illegible]; Spinden, [illegible]; Curtis, VII, [illegible]; Chamberlain, (a), [illegible]; Lowie, (d), [illegible]; Wissler, (a), [illegible]. Wissler suggests that the Blackfoot specimen of basketry type figured by Mason, O. T., (a), [illegible] is from the Blackfoot Sioux. Lowie, (i), [illegible]; Mason, O. T., (a), [illegible].

[5] Curtis, VIII, 74; Mason, O. T., (a), [illegible].

1: Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

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Wishram cradle is angular, yet seems a related form. The last two and the Klamath, Cayuse, Thompson, and some Eastern Shuswap examples are provided with projecting handles in the middle of the upper end. The Klallam cradle is an interesting modification of the Northwest Coast trough cradle in the direction of these flat board forms. The trough is so slight and so filled with padding, that the child lies on, not in it. Further, the form is that of the Thompson cradle even to the handle[1]. The Cowichan cradle is like this but without the handle[2]. The Lkūñgen cradle for a young infant is presumably related to these flat board forms, although it is made of bundles of rushes, the outer one of horseshoe shape. The first Quinault cradle is also a very shallow rectangular trough, in place of the later trough form.[3]

The wooden cradle is used in the Southwest by the Zuñi, Navaho, and the Hopi of the middle mesa. One of the Zuñi forms and that of the Hopi are rounded on top, square at the lower end, and with parallel sides. These may also be variants of the oval form. The second Zuñi pattern with a terraced top is only a further variation. The Hopi of Oraibi and the eastern mesa have a cradle of the same shape but formed of a U-shaped bow filled in with longitudinal rods held by transversely placed wickerwork. The rounded end is usually at the bottom of these specimens but sometimes it is at the top. It is, of course, possible that this is related to the Moapa type where the longitudinal rods are laced by open twining. The Kaibab have also a wicker board, but its shape is not given by Powell. The Navaho cradle presents the most interesting variations of the board form, for here the two projecting points above resemble the points of the Plains lattice frame.[4]

This type, so named by O. T. Mason, consists of two broad sticks converging toward the bottom and crossed by two others. In its tapering form it resembles the oval shapes of the Basin-Plateau. This is used by Comanche, Kiowa, Dakota, and perhaps others. The Mescalero cradle at least is not like these, but apparently a solid rectangular or elliptical form.[5]

The Pima usually have a swing of cloth suspended by ropes; so have the Papago, while the Cora use a swinging netted hoop. The Navaho cradle is sometimes placed in a swing.[6]

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[1] Gunther, 258.
[2] Field Museum, no. 19689.
[3] Boas, (a), 673. Quinault information from Ronald Olson.
[4] Hough, (a), 341; Mason, O. T., (a), 503-4; Powell, 127; Franciscan Fathers, 469.
[5] Mason, O. T., (a), 530, 511; Dorsey, G. A., (b), 10; Goddard, (c), 1st ed., 141.
[6] Hrdlička, (a), 41; Bartlett, II, 284; Hrdlička, (c); Franciscan Fathers, 472. The Yaqui cradle described by Mason, O. T., (a), 523 is different from any of the foregoing. It consists of parallel reeds fastened by dowels in rectangular form.

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Most of the wooden cradleboards of the Basin-Plateau are covered with skin; those of the Southwest are not. This appears among the Eastern Shuswap, Spokan, on the Oregon specimen of Wilkes, Cayuse (?), Nez Percé, Flathead, Kutenai, Blackfoot, Crow, Wind River Shoshoni, Uncompahgre, Southern Ute, and Arapaho. This is further evidence of the relationship of the cradle among these peoples. However, the use of the cover is a separable trait for it has been applied in the adjacent region to the hoop-and-rod types of the Paviotso, Kaibab, and the Colorado Ute. The lattice type of the Plains is provided with a pouch to hold the infant. Some of the Basin-Plateau types (Upper Thompson, the Oregon specimen, Flathead, Blackfoot, Wind River (?), Southern Ute, and Tule) have something of the sort or else the cover itself forms a pouch. Some connection between cover and pouch may be suspected, but this is difficult to work out from illustrations and descriptions alone.

The hood, arch, or awning which protects the face of the child also offers comparative points.[1] First, it is not used among the Plains tribes considered here (Comanche, Kiowa, Arapaho, Dakota, Crow, Blackfoot) nor northwestward among the Flathead, Kutenai (?), Eastern Shuswap, Spokan, and Nez Percé. It is not used in California, among others by the Round Valley group, with the Tule and Yokuts forked stick cradles, nor by the Yaqui in Mexico.

There are three principal forms of the hood. The Upper Thompson, Lillooet,[2] Wishram, Klamath, and Cayuse have a single stick forming an arch secured to the sides of the frame much in the manner of those in the Eastern Woodlands area. In the Basin and California a triangular awning is used: one blunt apex is usually fastened near the top of the cradle, the base rising above the infant's face where it is supported by a transverse arch. Paviotso, Washo, Mono, Maidu, Miwok, Yokuts, Chukchansi, Wükchumni, Uncompahgre,[3] and probably Wind River Shoshoni and Southern Ute have this awning made in open-twine technique, with the supporting arch usually at an angle to the board; that is, leaning toward the upper end of the board. The Shivwits awning is simple twine; that sometimes used by the Hopi of Oraibi and the eastern mesas is wickerwork. The supporting arch for these two tribes and probably the Colorado Ute is vertical.

The Southwestern tribes use either a broad arch or hoop, the latter only among the western groups. The Navaho arch is formed by four

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[1] Some Californian and Basin hoods are ornamented to show the sex of the infant. One Havasupai hood bore a string of beads arranged in a zigzag and resembling the decoration of a Paviotso hood, but I neglected to enquire if this had any significance.

[2] Teit, (b), 281.

[3] Mason, O. T., (b), 189.

sticks placed side by side or by a single broad strip of wood. The Zuñi 171
also use four sticks, but with the tops of the arches spread apart;[1] that 854
of the middle mesa Hopi is similar but uses three sticks. Mescalero, Western Apache, and Moapa have arches made of reeds bound or woven together. One Western Apache form consists of broad splints set transversely in an arch. It is also possible that Hrdlička's description of the San Carlos hood may refer to the hoop form. This is the type of the Havasupai, Walapai, Mohave, Pima, and probably Kaibab. The construction of the first three is almost identical, while the Pima hoop is woven in checker or twill.[2]

I will not discuss the relation of these flat cradles to those of the Eastern Woodlands, the sitting type of northern California, nor the wooden trough of the Northwest Coast.

The navel cord is tied to the cradle hood by the Havasupai, Moapa, 171
Southern and Uintah Ute, Paviotso, and the Northern Maidu of the 846
mountains. Like the Havasupai, the two Ute groups believe the child 854
will be foolish or sickly if this is lost or thrown away. The same practice and a similar belief was recently found among the Michahai (Yokuts) and Waksachi (Western Mono) by A. H. Gayton. All these people (excepting Havasupai and Maidu ?) dispose of it by burial.[3] The Klallam infants carry the cord tied to the wrist; if lost, they become foolish.[4]

Havasupai names are either meaningless or they are nicknames. 171
This is also the case with the Southern Ute and, I gather at Zuñi, while
among Moapa, Shivwits, and at Cochiti they are always meaningless. 557
Elsewhere in this region names have definite meanings although these vary in character. Among Uintah Ute, Wind River and Lemhi Shoshoni, Klamath, Paviotso, and Yavapai these are usually nicknames referring to the personal characteristics or actions of the name's bearer. This is the usual type of name which Navaho men bear, but as boys they are named, like the girls, with reference to war. Pima names also have meanings, and, like the Havasupai, their men have in later life names referring to sex, especially the female, or to their own peculiarities. Similarly nicknames are given by the Northern Maidu of the foot-hill region: those of the mountains give similar names but these are the names of deceased relatives or friends. Such naming for the dead is the custom among the Maidu of the Sacramento Valley and of the Southern Maidu.[5]

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[1] Idem, 183.
[2] Kissell, 149.
[3] Lowie, (i), 268-9; Dixon, (a), 230.
[4] Gunther, 234.
[5] Lowie, (i), 270-1; (a), 211; Parsons, (c); Starr, (a), 62; Corbusier, 331; Franciscan Fathers, 129-130; Russell, (d), 188; Dixon, (a), 230; Fages, 35.

171 351 Freedom in the use of names is a Havasupai peculiarity, for in most tribes of this area reluctance is shown to telling one's name. This is characteristic of the Yavapai, Navaho, Zuñi, White Mountain Apache, Klamath, Lemhi and Wind River Shoshoni. Lowie thinks it probably a widespread and deep-rooted Shoshonean feature. The Moapa do not name the dead in a relative's presence. This is then no more than the Havasupai reluctance and not the abhorrence of the Navaho and Western Apache.

INSTRUCTION OF CHILDREN

861 Instruction is quite sporadic and incidental. So far as their elders express what they consider proper formal instruction, it is objurgation and admonition to behave and to be industrious.

868 Children are taught to talk and walk. When they begin to walk, we tell them: "Go fetch this thing for me;" thus telling the names of objects. Then they will know how to talk as people do. When girls begin to talk, their mothers instruct them how to fetch water and wood: "That is the way I carry things." They teach them to grind corn: "When growing things are ripe, you must gather them. That is what a woman does. When you are grinding for the first time, look for the rat's burrow and observe how he has piled up the dirt at the entrance; then when you grind corn or seeds, make your pile of meal a little larger than that." When the girl is old 867 enough to marry, her mother tells her, "When you marry, do not loiter about the house, but bustle around gathering plenty to grind so you will not starve. You should have plenty of corn, pigweed and *slit'* seeds, piñon nuts, mescal, and prickly pear." That is how an old mother teaches her daughter when she is ready for marriage. If women gather plenty to eat, they will prosper. "When you are married and have a camp of your own, do not be angry if someone comes to your house, and do not fail to give them some of whatever food you have. Do not be angry with your husband's relatives. If you are, they will all say, 'Your wife is no good.' They should not have cause to say this. You should be good to all of them, then they will all be good to you and care for you. They will help your husband make a good living for you."

868 They instruct the boys similarly. When a boy begins to walk and talk, they tell him, "You will have to gather armful of wood or fetch water. When you are playing about, do things just as you will when you are grown. You should now hunt rabbits so that later when you are older and hunt deer, you will be able to kill them. If you are able to bring home deer every day, those who are wise will say, 'He is a pretty good boy.'"

[867] Sometimes, although they instruct a boy, he disobeys; he is lazy, and that is wrong. "If you are lazy you will not have anything; you will be poor." The old men taught the boys, showing them how to make their garments and the woman's dress. After they were instructed, they made some for themselves. Then when a boy married, he knew how to make a dress and moccasins for his wife. That is how the old people used to instruct them.

When my father was alive he taught me everything just as he had been told when young. "Do thus to straighten an arrow, thus to make a bow or arrowheads, to feather the arrows, to bind them with sinew, just as I do; then you can carry them hunting and kill game. Do just as I: I will not live much longer. Or, when I am old and blind, I will not be able to make any more for you, so you had best learn quickly. This too is the way I make moccasins, pants, shirts, and leggings. I will teach you everything I know about things to wear. If I were a boy like you, and my old maternal grandfather was telling me about these things, I would do as he said." 868

A boy is instructed to run toward the dawn as far as he can before turning back. He carries a short slow-match. Hardly has he started to return, when he touches it to ankles, knees, wrists, and elbows to keep them from becoming rheumatic, and throws it back over his head. Recovering it, he runs on home. This is in order that he may readily recall a forgotten article before he is far from camp. He continues this practice through manhood, (?) running at each of his wife's illnesses (p. 326).[1] [751]

When I [Sinyella] was about six years old, my father said, "Do not sleep after sunrise; wake as soon as daylight appears. Run toward the dawn. You should do this every day. Run out as far as you can. Do not walk; run. Do this always when you are a young man too; then you will be able to run fast, and when you race with someone you will win. If you do not, you will be beaten." I did this all the time, and I washed my face and eyes. He said, "When you wash, your sight will be sharp; then you can see the game—rabbits lying under the bushes, or deer visible only through an opening among the trees. If you do not wash every morning, you will miss seeing a deer, even though he stands close to you; he will scare you when he bounds off." That is what they told me when I was as old as Lanso [six]. Later when I was as old as my youngest son [twenty] I made both men and women's clothing. By that time I knew how to do all these things. Every morning I ran toward the daylight, so I became a good runner. I could beat the Hopi and Navaho when I was a young man. They told me this when I was a boy and I did it, and it was as they said. But now I am getting old and I can not walk or work fast; my legs are getting weak. [863]

He told me how to ride my horse in chasing deer. I shot them from horseback while running. "If you have good horses you can do just as we did," they said. "If you live as we tell you, you will live to be an old man. When you have children, tell them the same as I told you. When you are very old, blind, and your limbs are weak, your son can carry you. You can use a cane; one of your sons can lead you by it. When you are old and toothless, they can put mashed corn and meat into your mouth, and take good care of you just as though you were a little baby." 867

My father said, "When you are a young man and feel strong, you can travel about to get anything you need. You can visit other tribes to trade for things to make a good living: horses, buckskins, or other goods, or things to eat. By and by when you are old you will not have good things any longer." That is what I was told and I have no good things now.

Since success in hunting depends more on skill than on charms, explicit instruction is given to the boy. His father or paternal grand- 868

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[1] Practising running and breaking off branches is referred to in myths. The San Carlos boy is also taught by his father to run and to break branches [Hrdlička, (d), 491.] The Achomawi-Atsugewi puberty custom is somewhat comparable [Dixon, (e), 216.] Mohave and Southern Ute fathers similarly run after the birth of a child, the latter breaking off branches [Lowie, (l), 263]. [773] [171]

868 father is the proper guide, but (paternal ?) uncles may offer casual instruction. Nicely made bows are sometimes presented by a grandfather, and all seasons, particularly the autumn when the quail abound, see the boys practising marksmanship. While boys are still young they are taught by precept. They were first taken hunting when about ten years old, shown the deer tracks and "parks", how the game stands and walks, and how to crawl up to it and shoot. Boys of this age are cautioned not to smoke until they have killed their first coyote.[1] When a youth first [224] kills a deer unassisted, he lets it lie, returning home to fetch his grandfather, or some other ancient. The old man flays and butchers it, and he, not the boy, eats the cooked liver.[2]

Little girls help their mothers at household duties when their brothers of equal age are roaming from home in sport. They accompany their mothers to the fields to gather corn, to the orchards to prepare peaches, etc., and assist by carrying little loads of produce and wood, fetching water, and tending the babies. Adolescent girls remain under their [882] mothers' eye and do not go about the canyon freely.

Basket making is taught to girls of seven to nine years. As atten- [177] dance at the government school interferes with the old process of training, [648] it is difficult to observe today what progress may be: a girl of sixteen made an execrable basket; three years later her work was average. A left-handed girl has also been taught.[3]

Dance and gaming songs, which have no esoteric character, are picked up by quite young children. It is a common thing to hear them sing snatches, particularly if they think themselves unobserved. One boy of five had quite an extensive repertoire. Children of eight or nine [852] take part in the dance and without much hesitation join in the singing.

Women dance and sing as well as men do, yet they do not have any periods of dance practice.

Although young children may listen to stories on a winter's evening, 538 Manakadja stated that no serious effort is made to engage their attention [869] until they are ten or twelve years old. This informant and Sinyella were each told the tales by an uncle (probably an elder brother of the father) when boys. Men of fifty or sixty pretend not to know the tales sufficiently

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[171] [1] The Pima have the same custom (Russell, (d), 188). Pueblo boys are forbidden to smoke lest it make cowards of them, or as at Cochiti, lessen their ability to run (Dumarest, 165; Parsons, (f), 9). Smoking is connected with warrior status. I vaguely recall having read that killing a coyote is also a requisite, but cannot now find a reference to this.

[2] Among the Paviotso of Humboldt Lake a youth does not eat his kill (rabbits, etc.) until he has brought down his first large game (e.g., deer). He carries home the hide to his father, who makes a fleshy loop from it, which he throws over the boy. He may then eat the flesh (Hopkins, 50). A Shasta boy does not eat his kill until a year or more after he begins to hunt, else he would lose his luck (Dixon, (b), 452).

[3] Kroeber, (d), 466, notes that San Carlos girls are taught twined weaving first, later coiling.

well to relate them: it may therefore be that they really do not know 538
them until later in life.

Affectionate care is lavished on children, especially the recently 855
bereft orphan for whom new playthings are made and choice tidbits [736]
saved. It is quite common to see parents fondle their children, stroking their hair, etc., but rarely kissing them. Inasmuch as chastisement is rarely inflicted, it is astonishing to mark their good behavior. They are docile, not forward, reserved before their elders, and, I judge, are never long the topic of their parents' conversation, at least while they are present. Children rarely cry, and this is not frequently for anger or to gain their desires.

Punishment is infrequent, but a child who persistently disobeys 865
orders, is heedless, or filches food before others eat, [illegible] slapped or switched a few times on the thigh. A more drastic punishment consists in building a smudge of the child's faeces, together with those of dog and horse, in which he is held head downward until he nearly loses consciousness. "This was frequently done to old Captain B, when he was a boy; now you see he is all right." Sometimes a teased child becomes angry. The man then takes him into a nearby sweatlodge, threatening, in a teasing way, to keep him there till sundown, though the heat kill him. When the child is almost overcome, he promises to behave, and is released.

If a child is often beaten without just provocation, he may feel that 855
he is not wanted, then, just like an adult, his soul or heart[1] forsakes him and he pines and dies. The soul of a little child is easily frightened; 858
one who is always timorous, though no danger is near, will not live long. Sinyella has never seen such, but he has heard this told.

Little children are told by their elders[2] that the echo is the call of a 855
man hiding in the rocks or in a cave. They are sent to search for him. "Try it again; he will appear there; you will see him soon."

Early in the morning a dark yellow rock-bird (*tatiθa*) will chatter in the bushes close to the camp. Then the old people will say to a little boy: "The rock-bird laughs and calls at you, 'You have no arrow to kill me; you look like a girl.'"

PUBERTY CUSTOMS

These, which concern girls alone, are even more moderately devel- 881
oped than among neighboring tribes.

At the first menstruation, stones are heated in a pit near the camp, covered with dirt, and carpeted with leaves and brush. The blanket-

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[1] These English words were used interchangeably in this connection.
[2] Who do not mislead themselves.

881 covered girl lies on this (*opdgd*), protected by a temporary shade, for four days and nights.[1] Before this, however, her body is washed with yucca root suds, and painted red, save for her face which is decorated with the brown juice of the opuntia. During this period, she must eat and drink sparingly, meat is tabooed (but not salt), and she must use a stick or a smooth deer tibia to scratch herself.[2] She is not permitted to sleep by an old woman, who sits beside her, singing, "Do not be lazy; do not be troublesome. When you are married, cook and fetch water and wood."

[773] Further details are given in a myth. The girl should run to the east at dawn each of the four days.[3] Then she may wash her hair and body. She will be barren should she taste meat before the menses (*dhud'figd*, lit., red) end.

841 A woman lives at home during her periodical illnesses, the only interruption in her life being the taboos against meat for fear of barrenness, scratching with her fingers, and sexual intercourse. At the first 585 menstruation following marriage, the mothers of a couple wash the entire 841 body of their respective children and paint them red from head to foot. The husband's hair is roughly bound with a cord into a single queue by his mother. The hair at the wife's temples is tied at the occiput, enclosing the back hair which hangs loose. All this takes place at the camp of the wife's parent, with whom the couple are living. Their parents instruct them, adding to the wife, "Run toward the setting sun[4] as far as you can and return. Some unmarried girls will run with you: try to beat them." This is for the purpose of enabling her to run fast and move about briskly. This running is performed on each of four days succeeding the end of the first flow and on one day following each subsequent menstruation throughout her lifetime. The husband, after being washed by his mother, runs at dawn on each of these days, carrying a slow-match (p. 323).

MANNERISMS AND CUSTOMARY BEHAVIOR

825 Women do not fear the mice that live in the thatch, as white women do, though they drive them away. Yet they react in the same way to lizards; scream for fear they will run under their skirts.

758 Care of the sick and helpless is rather cursory. The invalid must share the discomforts of sleeping with the rest of the family and the coarse

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[1] Compare the roasting pit of the girls in Southern California.

[2] For comparative notes see Lowie, (d), 146–147, (j), 282, and Benedict, 79.

[3] The Navaho girl runs to the east and back, and a similar custom marks the adolescence ceremony among the White Mountain Apache. The Southern Ute girl at least runs to and fro. [Franciscan Fathers, 446; Curtis, I, 46; Lowie, (i), 273].

[4] There is some confusion about the time; compare above.

meals prepared for them. Blind Bert's relatives, including a newly 758
acquired son-in-law, helped him about at the dance. But in some cases, such attentions are short-lived as though people were impatient. Thus the real burden of Bert's care fell on his wife's shoulders, although he had adult children in the same camp. On the other hand, note Sinyella's story of how he got shaman after shaman for his son (p. 280). Expressions of real concern for an ailing relative are by no means uncommon.

While the formal expression of sympathy for grief may take the form 152
of a forced wailing, real sympathy is certainly voiced. For example, 571
the men refrained for some time from using the customary sweatlodge,
situated near the home of a man whose brother had recently died, because,
as they said, the relatives were sad. The dead man's young son [736]
was treated with the greatest tenderness by his maternal grandparents, [603]
who now took charge of him.

Personal cleanliness is, I think, somewhat greater than among the 515
Zuñi and White Mountain Apache. Children spend summer days splashing [871]
in the creek, and men and women bathe in the sweatlodge and creek,
somewhat indiscriminately. Men are not always careful to avoid exposure. [834]
Men are somewhat cleaner than women. Clothing is only infrequently
washed: women wear their cotton slips while in the creek. [296]
Not much lousing or scratching is seen.

Estimates of individual worth are based on abilities, yet here, as 554
always, values follow conventional standards. Chiefs become such by 624
prestige and renown based on their personal qualities (dignity, industry, and even temper), on their wisdom, bravery, and friendship with foreigners. A man who would otherwise inherit chieftainship, yet lacks these qualities, would fail of receiving it. Chiefs are not gauged on their hospitality or liberality. Three of the six chiefs are recognized as the best speech makers in the tribe; an evaluation which even an outsider must agree is just. Rock Jones, the shaman, is credited with being best acquainted with the folk-tales, as well as being the best raconteur.

One individual, a man of middle-age, is known as an habitual liar. 558
His veracity is held at such low value that no one repeats a statement of his without prefixing, "P—— said this." Captain Burro, now elderly, seems to have been a butt all his life. As a boy he was the subject of the smudge-punishment, as a young man his marksmanship was held in disdain, and today he suffers the jokes of the young men and the indifference of his peers.

Some women have reputations as basket makers. The criterion is 555
apparently regularity of stitch, although the best of Havasupai products is inferior in this regard.

832 On the subject of womanly beauty, I was told without hesitation that all men agree on Esther and Eunice. Both are young, sprightly, and smiling. Both have broad, perfectly oval faces; the curve of the cheek flowing smoothly from eye to wide chin, uninterrupted by prominent cheek bones. Both have clear, evenly pigmented skins, tan or buff, without wrinkles, hollows, darkly pigmented or thickly veined areas. Evidently the hair is not included in the estimate for Eunice's hair is cut quite short.

562 While wives are subordinate to their husbands no great restrictions are imposed on them. A wife follows when walking with her husband. She may eat after him when he entertains guests. Etiquette does not prescribe her seat with reference to his own. It is not proper for a woman to entertain a man alone during the absence of her husband, although it is permissible to have many men and children about. Nor should she walk about with any other man, not even a brother or father. If either of these relatives wants a thing brought from the fields, e.g., he so informs her, and she goes alone. When the objective is at a tiring distance, she may properly ride, but women do not ordinarily ride about the village, even when accompanying their husbands, as this would cause adverse comment. They would be cautioned against the possibility of being molested.

648 574 [439] [697] The attitude toward guests from other tribes should be one of cordiality. A stranger stands at the door until bidden to enter. The host now shakes hands and expresses his pleasure. Food is provided. Both are reserved, inquiries progressing slowly. The host makes a present, buckskins or food; his guest reciprocates. This is really an overture to trade negotiations, since presents are not freely given. Adoption is not usually practised, nor names bestowed.

The visitors were pressed to eat heartily before others at the dance in 1919. In spite of the cordiality shown them, group consciousness showed itself in the awkward banter, brusqueness, and the tendency to form a compact group on the part of the Navaho and Hopi visitors. At night they usually camped together at a single host's camp.

574 [576] It is courteous to call out before entering a friend's house, though an informal entrance is not taken amiss. While it was said that a guest would be seated to the right of the entrance (to one looking in) or better at the side furthest from it, this was denied by another informant. Casual guests munch a roasted ear of corn, etc., if such happens to be prepared, otherwise nothing is cooked for them. No word for thanks exists other than *hánigə*, good, nor any for please. The Zuñi custom of expressing thanks is ridiculed.

There are several customary positions for sitting women. They usually sit on their crossed legs, the feet turned almost instep down (they kneel, cross ankles, and sit on their calves.) Or they kneel on one knee, then sit with that leg doubled under them, or the legs may be stretched straight forward, ankles crossed, when the back is against a support, or they may sit Turk fashion, the legs drawn up and crossed. The dress is pulled sharply back between the legs when sitting to avoid exposure. 516

Men's sitting positions are much more variable. Perhaps the commonest is similar to the women's usual mode. They also cross the legs Turk fashion, or lie half recumbent.[1]

Both sexes carry articles in the hand, never on the head as among the Pueblos. Men carry bulky articles by means of a carrying strap passing over the chest; women in their burden baskets, the strap of which crosses the forehead. 482

Left-handedness is as rare as in a group of normal whites: in 1921, three (two males and a female) were noted in 182 Indians. Should a pregnant woman use her left hand continually, the child will be left-handed. When the parents observe that the child begins to grasp with the left hand, they remonstrate and tie that arm across his abdomen. But this is no cure; he cries and the hand is freed. The right hand, literally "good hand" (*sölgáhánà*) is so called because it can be used at will. It is wrong to shake hands, or to hand an object to another, with the left. People feel uneasy; say it is not a good way. A handshake, using the left, is no confirmation of an agreement or assurance of friendship; it may cover deceit. 516 827 856 576

Gestures are not common. The lips are protruded to point out an object, but the extension of the lips and the frequency of their use is never as great as at Zuñi.[2] In pointing or describing a circuit at a distance, the loosely clenched hands are held as in shooting a bow, the right hand near the right shoulder, elbow raised outward, the left arm nearly at full length and slightly to the left of the body. Both hands then describe the arc together. 201 [171]

To signify, "all gone," "all washed away," the right palm is brushed slowly but forcefully forward on the upturned left palm and then up forward.

The gesture used to describe an arrow shot, as in a tale, is not the same as the actual release. The hands are put in position as in shooting

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[1] Neither men nor women cross the knees when seated on chairs, etc., nor do they squat on their heels. The arms are not characteristically held akimbo, as are those of African natives. The toes are never used to assist in working. [171]

[2] The Southern Ute also use the lips in pointing [Lowie, (1), 283.]

201 and the forefinger of each hand filliped against the thumb, first the right, then the left. This simulates the sounds of the slipping string and the slap of the feathers on the bow.

[576] On meeting a stranger or a long-absent friend, the Ha-va-su-pai grasps him by the hand, moving it up and down in time to the words of the greeting; and, as he lets go, lifts his own hollow palm toward his mouth, then, with a sudden graceful motion, passes it down over his heart.[1]

Running is indicated by doubling the arm, fist clenched, and working it back and forth vigorously at the side. To show wrestling, the forefingers are half locked before the breast and slowly rocked forward and back to indicate two men struggling. Trading is shown by holding up and crossing the forefingers, occasionally tapping them together; eating, or an invitation to eat, by placing the tip of the crooked right forefinger between the lips.

The wink is not used significantly, nor is it always comprehended. An injured finger is not thrust into the mouth. The Havasupai do not [198] whistle.

Girls and women cover the mouth with the hand or a corner of the shawl when embarrassed or surprised.[2]

[576] A yawn is covered with the back of the hand.

Women when washing their hands, wring them together, then suddenly opening the prone fists, fling off the excess drops from the extended fingers.

[198] When women (sometimes children and less frequently men) are vexed, scorch their fingers, etc., they say *dá, dá, dá* rapidly.[3]

It is customary when fumbling for a continuity of ideas, to repeat a 195 word almost as though stuttering.

Enjoyment of a meal, as by a guest, is shown by loudly smacking the 576 lips from time to time.

Smoking is but moderately indulged in by the older men today, 276 which may be presumed to be the general situation in former times. These men smoke cigarettes with a long puff and a loud closing of the glottis, much to the amusement of their juniors. It is merely a matter of leisure-time indulgence and has no ceremonial significance.[4] I do not recall learning that women smoke.

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[171] [1] Cushing, (a), 555. I have never observed the second part of this greeting. Cushing may have incorporated a Zuñi greeting here.

[2] Also Yavapai (Corbusier, 330).

[3] Compare the Hidatsa *la, la, la* [Lewis, (a), 234.]

[4] No offerings of tobacco or smoke are made. Tobacco is not chewed

THOUGHT

So much nonsense has been written about savage thought that it 153 may not be amiss to record that I find the Havasupai clearly the equals of my white acquaintances in reasoning.[1] Granting them their premises and the limitations of their knowledge, their judgments are justified.

The inability of the savage to isolate abstract concepts has also been 828 asserted. As a somewhat indirect test I asked how one thinks[2] (*wudelgd*). Sinyella, who understood the interpreter's question with difficulty explained that he knew nothing about it: he had never been told. Jess to whom the question could be put directly,[3] said that his whole body was involved in thought, although his eyes, head, and to a lesser extent, his ears, were more intimately concerned. Two years later he stated:—

> "I feel myself thinking. Perhaps part of my body thinks; I feel it move. Perhaps it is the tendons all over my body: no, they simply move. The blood in my veins goes into my brain and my heart: when it enters my brain I think what I am going to do. My thought goes on all over my body. It (both blood and thought) causes my whole body to move about. (Q.—You are thinking hard, trying to tell me; where do you feel it most?) In my head: it feels as though I were trying hard there." Sinyella added, "Most men say they think with their hearts: I say so too. Some say they think with their heads: they talk about who has the most brains." Jess' wife, who was listening, answered, "I think with my heart."

Like ourselves, Havasupai scratch their heads when in a quandary: [201] *kdpdd'dldtóplgd*, "It is hard to say."

The conventional expression is then that the heart is concerned with thought, as it is also the seat of the soul, the life. Jess' answer is however a reasonably good attempt at introspective analysis.[4]

DREAMS

So much stress is laid on the connection of dreams with religious 114 phenomena by some writers that it seems important to record dreams 115 and the attitudes to them. Dreams (*ldsmddjlgd, gwéldsmd'djlgd*, cf. 124 *smdgd*, sleep) were obtained from an old man, Sinyella, and a young one, Jess Checkapanyegn. These are on their face actual dreams, not stereotyped like those of the Crow recorded by Lowie and the Ojibway visions of Radin.

A distinction is drawn between unimportant and significant dreams. 787 While there are no definite criteria to distinguish them, it seems that those

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[1] This is also the well-nigh unanimous judgment of my American colleagues respecting those Indians they know. Curiously enough, published statements of this fact are rare—is it too obvious?—leaving the field to the fulminations of the closet-philosopher.

[2] See also the remarks on shadows, p. 278.

[3] He has attended school.

[4] These statements modify those made earlier in this series, vol. XVI, 314, footnote.

787 in which the dead, ghosts, or spirits figure are generally held significant. The real test seems to be the subsequent occurrence of an important happening, whereupon the appropriate dream is assigned as a forecast of the event. There is always the expectation that the dream may come true.

Luck is acquired in dreams, according to Sinyella. A dreamer *may* [777] acquire good clothes like those worn by a person in a dream, or edibles such as he had. Similarly, men and women dream of good dance partners and of lovers. If a man dreamed of a successful hunt, he would speak of it the morning following, saying that it was time for him to hunt. If he was successful within a short time, he said, "That is what I dreamed," and all would rejoice.

One man, the most prolific inventor of songs used in the dances, is said to have dreamed them, or rather, to have dreamed of having been in a far country. Whether he claimed to have heard the songs there is not clear. What he saw, as described in the songs (p. 264) may well have been dream experiences.

Sinyella stated that if a man had a nightmare, dreaming for example that he had been in a distant land where there were bad people, he would wake and sing about what he had dreamed. He says, "I do not want to dream this way. When darkness is here, I want you to make me dream pleasantly;" thus he talks to the dark, the night.

Shamans acquire their powers in dreams. Little Jim saw his spirit [756] in a dream before he used his powers; Rock Jones dreamed of lightning and rain and heard the song he now uses; Mark keeps his rattle by his side to sing of what he dreams when he wakes.

Jess said that he did not see himself as an actor in his dreams. He 159 sees parts of his body in action and feels their relation to a central core, 787 his personality, just as he does when awake. Sometimes he dreams that his head hurts as with a headache, and when he wakes he is really suffering with one. One morning he said that he had dreamed of many different people the previous night, a pretty bad dream. His sister's husband had been buried the day before and he had cried all day and part of the night for him. He woke with a dull headache and inert limbs. On another occasion he said he had heard someone groaning in a dream the night before. A lot of men around him said it was a ghost; they were afraid. Then he woke and heard a bull bellowing up the canyon. At times he dreams of riding a horse down a declivity. First he stands on the brink and looks down to where the trees are tiny; then his horse jumps down the cliff. He is frightened and wakes.

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787

He has occasionally dreamed of spotted fawns coming close by him, whistling. He saw the fresh tracks and followed them. He has been hunting after such a dream, but failed to see either tracks or fawns. He dreamed of seeing the heads of antelope showing above a barrier at a distance. Some were lying down and others standing about in the plain. He wondered how he could get close enough to kill them since there was no brush for cover.

I dreamed last night about lots of venison. I dreamed that my father shot many deer. He was living by himself in a cliff-dwelling on the northern side of the Buckskin Mountains; I know the place. I dreamed that he took Mr. B's boat, which he left tied in the Colorado River, and went across. A well-marked fresh trail led up the cliff to the cave. I saw that he had much meat and deer hides, the latter spread on the ground. The meat was piled in two or three places, a great quantity. We were both there when I heard someone coming. I looked up the trail which led down to the cave, and said, "Someone, a white man, is coming." He came down to see the deer meat. He said, "I will not say anything about that; if you have plenty of meat, it is all right. I know all you Havasupai; I will not say anything to the forest-ranger."[1] I know that man, Tom M. He said his wife would like to have some meat. So I gave it to him and he went home. (Tom's wife has left him. I asked him why and he said he did not know. What happened? I do not know. She always said she wanted to leave; she was always angry. She went to F— — to get a divorce. She left their son with Tom, who is a cattleman.)

Sinyella gave the following account of his dreams:—

When I was a young man, I dreamed I had plenty of horses, cattle, and sheep. I dreamed that repeatedly for a long time. Then I thought, "Maybe I am going to have those animals some time." Now that I am old, I have them; many horses, cattle, and I had some sheep too. I butchered the sheep as fast as I got them. That is what I dream for; sometimes the dream tells us right.

Once I dreamed that I went to Oraibi and wanted to buy blankets. As I dreamed I was positive that I was in Oraibi, but when I woke I was right here in my own house. Sometimes I dream that I am in the Walapai country trading, but when I wake I am still at home.

I dreamed last night about women. We have no women in my camp.[2] I dreamed that a woman came right to me, and I asked, "Do you like me?" She said, "Yes, I like you." Then I drew her by the arm into my bed and she let me have my will of her. I felt positive I was doing this and when I woke I felt pretty bad. I have also dreamed of nearly having my will of a nice girl, but I woke. When I tried to resume the dream, I failed.

I used to dream that I was mounted and chasing a deer, antelope, or mountain sheep. Sometimes a short time after my dream I actually chased and killed them. Then I know that is why I had dreamed.

Long ago when there were wars I dreamed that I heard the enemy coming, shouting, and patting their mouths.

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[1] Hunting is forbidden.
[2] This was a recurring theme of his conversation.

Sometimes I dream that someone dies and they are taking his body away. The
787 dream tells me right, because after a little someone does die in this way; that is why
159 I dream of it. Sometimes, however, it is all right; it does not turn out that way.

Sometimes I dream of seeing another tribe. I am quite certain of it. Other times I dream of hunting and killing deer. Then I hunt and get two or three in the same manner. At other times I dream, but I fail to get any. I dream of working in the fields, hoeing weeds, or planting; then when I am working there, I do just as I dreamed. Sometimes I dream the corn will grow tall, and at other times, will not grow at all: it eventuates that way. I have dreamed that I was hunting and got some deer, but when I tried next morning I failed. I dreamed falsely: one does not have to dream the truth.

The night before last I dreamed about cattle and horses. I saw that I had many cattle. They were walking about at a little distance. One big bull, with long horns, came close to me and stopped. I went to him and stood by his side, rubbing my hand along his back. The bull stood with his head aslant, hooking with his horns. I was afraid of being hurt. While I was looking, I turned. I saw I had many horses just a little beyond the cattle. I saw that all were sorrel horses. They were quite small ponies. My horses, those I really have, are about that size.

I dreamed last night that I was baking in a Dutch oven. Although it had not been cooking long enough to bake properly when I looked in, it was all burnt.

I dreamed about a hunting charm [shaped like a marble.] I took it from my pocket and scraped the top a little with my knife. I continued scraping until finally it broke in two. I tried to tie it around to hold it together, but it kept bulging between the bands, so that it was impossible.

Sometimes, at long intervals, I dream that a ghost comes into my house and lays his hands on me. He scares me and I say, "Something bad, you must not touch me. I do not want you to touch me; take your hands off." But the ghost keeps his hands on me and holds me tight and wants to do something to me, so I yell hoping that someone will hear and the ghost will leave. So I groan. Everybody dreams this way.

Sometimes I dream that I see and talk to my dead parents. I dream that I am living at their house. I also dream of the good horses I had long ago and which are now dead. I dream that I ride them again. I dream that I see the old men who used to be my good friends here; I dream that we are working together again. When I wake at dawn, I find I am not dead, I am still alive, and I want to sleep again, but peacefully. I say to the dead, "I am not dead: I only saw you dead people. I am still alive. I want to sleep well so I can get up in the morning refreshed. It is bad to dream of the dead; I do not want to dream of them; so go away." And then I blow into my hands and brush them down my face and body. So I brush the dream away into the night.

Cases of somnambulism are known. Such individuals are deemed
158 crazy (*elpérmdg*, also inebriated). Some men talk in their sleep, occasionally in English.

Crook often talks in his sleep, shouting, and carrying things about. He was
158 camping with his father. A coyote was barking in the woods. Crook got up in his
787 sleep, ran out a little way, and cried, "What is that calling out there?" Once Crook
159 and I [Jess] were at Rowe's Well, when he dreamed that he was fighting someone. I
heard him get up, punch the tent, and scatter his bedding, repeating, "I am going to

kill you." He jumped on the bedding, looked around, got a long stick, and ran out. 158
He ran into a tree and stopped short. He cried out, "Do not run away from me. I 1787
will catch and kill you." Then he returned to bed. In the morning he told about it, 159
laughing.

Diversions

Modern economic life is not so different from that of the past, that 517
we may not assume the same leisurely pace in the round of a day's activities. Industrious as they are, there is still ample time for diversion. Much of the summer day is free from labor after the crops are planted and again during the harvest. Men gather at their favorite sweatlodges to gossip, or they indulge in the same pastime while helping an acquaintance stretch and rub his buckskins. Women are equally prone to gather at a neighbor's for the ostensible purpose of weaving their baskets or even shelling corn. Games of chance and some of skill, horseracing, song practice, tales on winter nights, dances, picnicing for wild foodstuffs, visits to neighboring tribes, and the inevitable philandering, offer a variety of outlets. The middle hours of the day find the women and the younger men at their gambling, and, at least during the summer, the older men at the sweatlodge. The most significant circumstance is that despite their leisure, their diversions are not such as would 181
lead to the elaboration of the artistic, literary, or philosophic life. Evi- 517
dently something more than leisure is required for cultural growth: a pride in workmanship, a passion for novelty, or something of the sort, far beyond what these people possess. While it would be unfair to describe them as apathetic, they clearly manifest no desire to appropriate the arts of life beyond their canyon walls. Which is the more astonishing in view of their frank admiration of the Hopi.

The sweatlodge functions as a clubhouse for the men. While 515
summer days are rarely so hot that one cannot work in the fields even at 517
midday, it is convenient to rest during this period, and the sweating 575
proves refreshing. Several of the more popular lodges are located on the 345
banks of the creek; others are not near the water. While the lodge is owned and even constructed by the man who owns the land on which it stands, he does not necessarily prepare it for use; anyone who finds it convenient may do so. Here a dozen men may be found during the heat 517
of the day, stretched on the sand awaiting their turn to enter, naked save 575
for breechcloth (they are usually careful to avoid exposure), gossiping 575
and discussing affairs of state. Women sometimes accompany their husbands, even in the presence of other men. They wear only the underapron. But such are rather family affairs, when children (perhaps boys alone) are permitted to enter.

345 The lodge (*ta'dleo*) is a dome-shaped structure, 2 m. in diameter and 1.3 m. high, set over a circular pit 20 cm. deep. The frame (Fig. 57) consists of light poles set into the ground at intervals of 30 cm., arched and bound with strips of bark. Two horizontal braces are bent around these, one near the bottom, the other halfway up the sides, but leaving a space for the entrance. The frame is completely covered with several layers of blankets and buffalo robes, furnishing an air and light-tight structure.[1] The floor is freshly strewn with green twigs, save for the space immediately to the left of the door (for one entering) where the stones are always placed. These are heated on a slowly burning woodpile nearby, and carried in with green sticks.

Fig. 57. A Sweatlodge Frame.

515 It is customary for a man to go into the lodge four times during the afternoon;[2] on each occasion four men may enter, but this is not fixed—there is hardly room for more. It is considered advisable to bathe in the stream first, taking copious draughts. The bathers crouch side by side, with legs crossed before them. The leader or host sits at the extreme rear with a basin of water by his side. It is pitch-black; the heat

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[1] Cushing, (a), mentions a covering of grasses and dirt. I have not seen this; perhaps it is used on the plateau.

is intense; each breath burns the nostrils and the roots of the hair 515
feel ablaze.[1] Suddenly the leader bursts into song; the others may join him. Near the end of their stay (ten minutes or more) the leader sprinkles water on the rocks with his fingers. To escape the fierce steam which rises to the top of the lodge, one bows face to earth, gradually rising as he is inured. On emerging, the bathers may plunge into the creek, or loll about waiting their turn again.[2]

Any song may be sung in the lodge, but some are peculiar to it. 533
These are used by an old man, not a shaman, to cure one who is hurt or [755]
wounded (*nahamí'dáidja suáláigá*, singing to cure). Such songs cannot be sung outside for fear of a calamity. Rock Jones, a weather shaman, [789]
sang his songs to produce rain, which evoked an immediate response in the form of a flood while he was still within the lodge.

Midafternoon finds the gambling games in full swing at one or two 517
of the village camps where convivial spirits forgather; women and principally younger men. 525
A typical scene at T——'s would show several games in progress in the shade of the cottonwoods, with shrill laughter punctuating the challenge and banter of the little circles seated on the sand; the horses standing, stamping, at the corral edge; men and boys coming and going; the children tumbling about in the sunshine; the elderly host, who rarely indulges, seated to one side, parrying chaff; and his half-blind wife querulously engaged in her household tasks. The function of this host is not clear; it is said that he likes to have [574]
the players come, but evidently they fee him from time to time. I have heard his voice echoing through the canyon, much to the amusement of bystanders, calling on the tardy to hasten.

Footracing (*lanomágeigá*, race by two; *lanomágoeigá*, by three or 526
more) is to a point 50 to 125 m. distant and return. Races were usually for stakes. There are no relay or kicking races, although the latter are known[3]. Horseracing has superseded footracing, but it has developed on 541
the same pattern, i.e., a race to a point and return. Considerable attention is given to the preparation of the course in the canyon (about 1500 541
m. long) and selecting the horses. To insure a colt becoming a racehorse, 789
the following meaningless songs are sung while he is being broken:— 533

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[1] On a day in October, the temperature in a lodge that was not quite air-tight registered 125° F. (outside 73° F). Probably the temperature in the summer lodges ranges from 110°-130° F. G. A. Dorsey notes of a Cheyenne sweatlodge that, "It is probable that the heat registered not less than 145°" ((d), 40). [345]

[2] I have found the sweating deliciously refreshing, relaxing every muscle. The plunge into the cold water has not the expected shock, although it does set the muscles quivering.

[3] In connection with a myth it was said that the object kicked (atipa''i) was a lump compounded of wool and piñon gum. The Pima use a ball of greasewood gum or a gum coated core of stone and wood (Hrdlička, (a), 44). [171]

541 giša giyi giyi gożdoq ávoqhal launda haneyá (repeat)
789 giðigiqigiqoqó nóqágábá launda hineyá
593 A second song is:—
[539] ał'i'i'ike'ego hasiáqá ,hasiáqá hasiáqáqáqá yóñgal

[177] [618] These songs were learned from the Navaho by Bob's paternal grandfather, who was captured in the canyon and lived among them for forty years. The Hopi helped him to escape on an occasion when he visited Oraibi. Horsemen do not jockey for a start, but start from a standstill.

526 Only girls juggle (*djipágá*). Two or three balls are caught in one hand as they walk about. These are stones, peach stones, or small wild gourds.[1]

Boys play a game wherein they throw darts, made of a corncob on a stick, at a rolling tray basket.

Men and boys play a number of archery games. In one, two men roll a circular opuntia cactus, which has been placed in the fire so that the spines could be scraped off, from one to the other. A group of others standing opposite its path shoot at it. The target is called a mountain sheep, deer, etc. A variation consists in rolling a small barrel cactus, from which the spines have been removed, down a hill. The bow men, stationed along its course, shoot in succession as it passes.

In another game two opposing bands of bow men are seated fifteen yards apart. Beside each group there is an opuntia cactus raised obliquely on a pile of dirt so that it presents only one edge to the opponents. [525] Arrows are wagered, which are won when the mark is hit in the center, which cannot be seen. A hit in the forward edge does not score. If the arrow strikes the dirt pile, lifting the cactus, the archer has a second chance. Holding the cactus together with his bow in his left hand, he tosses it up and attempts to shoot the flying missile. An opponent may try to make him miss by strumming on a bowstring. He holds the bow [534] horizontally between his lips near one end and taps the string with an arrow. This is the only occurrence of the musical bow among these people.

A similar game consists in shooting at two wads of bark set up about 25 yards apart. Arrows are stuck into the ground until they are required [525] for use. The parties shoot alternately. A single hit wins the stakes.

Wrestling contests (*gigwi'ðekga*) are frequently indulged in by men and boys. Opponents approach crouching slightly and lock their arms about each other's body. The winner must hold his man flat on the ground. Striking, kicking, and biting are not permitted.

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[1] They do not balance poles.

Shinney ([illegible]) is played in the spring before the planting for 526
stakes of future crops, buckskins, etc. The two companies of men or
women, numbering five or six, hang their stakes separately over poles [525]
erected at the middle of the field. The field is 60 to 70 m. long; the goal posts being two sticks, stones, or trees. The ball is buried in the center of the field. The two leaders strike it out of the ground. Each company gathers behind its leader. Pushing, pulling, and kicking at opponents is allowed. The ball may be kicked, but not touched with the hands. In the characteristic driving stroke, the ball is lifted with the stick and then struck while it is in the air. When the ball is driven over the line of the goal posts, either between them or outside, the whole stakes are won. The shinney ball (*tamdad'dá*), 5 to 7 cm. in diameter, is made of a circular

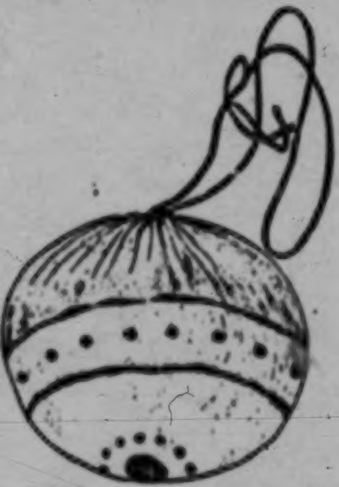

Fig. 28 (20.2-1610). A Shinney Ball.

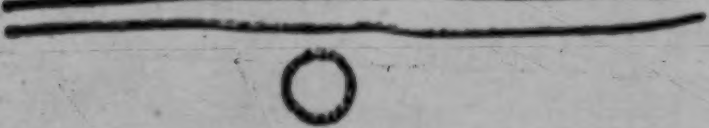

Fig. 29 (20.2-1612a-c). Poles and Ring for Hoop and Pole Game.

526 piece of buckskin 13 to 15 cm. across. A thong is threaded through holes in its edge; it is stuffed with damp deer hair, and the thong pulled taut and tied. The long ends of this drawstring, tied in a loop, remain until ready for play, when they are cut off. This allows for shrinkage, otherwise, if the string were cut short before the ball is dry, it would pull out when it was struck. Some balls are decorated in red paint (Fig. 58). The stick (*ʰácəvió*) is a branch with a short section of trunk for the crook. Children use smaller sticks.

The hoop and pole game (*i'ádávió*) is played by men alone. The hoop (*tsuádjáda*) is a 2 cm. ring, 15 to 20 cm. in diameter, made of a bundle of buckskin strips about which another strip is spirally bound. The poles (*i'il'ádáva*), 2.5 m. long, have a deep notch encircling the butt. The ground is carefully smoothed for 10 to 12 m. and a line to mark its boundaries drawn at each end, beyond which brush is piled.[1] Two men stand at one end: one flings the hoop down to roll along the course, and both running a few steps, throw their poles. In throwing, the loop is held vertically against the wrist, the back of the hand moving forward and down. The object is to have the hoop lie on the pole; this counts one. A sector of the hoop must rest wholly on the pole; if this is disputed, a little stream of sand is poured from directly above, which must clear both the inside of the hoop and the edge of the pole. In the next trial the winner rolls the hoop back along the course. The stakes are won when two points are gained in succession. If the ring lies in the [525]
notch (*p'ĭ'mágyápa*), it scores two and the game is won. An erotic interpretation is given when the pole pierces the hoop. The game really requires some skill.

[831]

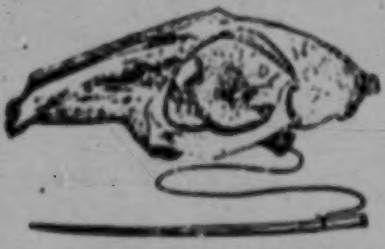

Fig. 60 (50.2-1614). Cup and Pin Game.

The cup and pin game (*hag-déi*) consists of a cotton-tail or jack-rabbit skull fastened to a sharply pointed twig, about 8 cm. long, by a slightly longer cord (Fig. 60). The base of the skull is cut away, the teeth drawn, and it is boiled free of meat. The cord is tied back of the incisors. Holding the stick, the skull is swung toward the body and caught on the point. Catching by any hole scores one; any tooth hole, six; ear hole(?), ten; incisor hole, forty; and if the stick splits

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[1] There is no word to designate the course.

off in a foramen palatinum, the game is won. This game is played by 526
four persons (men only?), two on a side. First, each member of one party swings until he misses, when it passes to the opponents. Three hundred or more counters are made of soapweed leaves split into narrow pieces, 10 cm. long. Some wider pieces have a number of slits in one end, six, ten, or twenty, corresponding to so many units. The side getting all the counters wins.

Possibly there is no conception of luck or supernatural aid resulting 777
in success; at least, I recorded no expression of it and was unable to isolate the idea. In a myth the hero, who has repeatedly made a perfect score, says, "I am all *right*; I have good luck (*ahiwig'ia*, I am good)." To win big stakes is *misf'viga* (*misf'vig'wiga*, to carry big winnings.)

Basket dice (*wiitetiga*) is played in winter; four women to a side. 524
The dice, (probably *sa'd'k*) are split wildcat hind leg bones, with red bands painted across the concave face. Four are tossed in a tray basket, about 40 cm. in diameter, flat-bottomed, with sharply rising sides. All convex faces up or all concave up scores one. The player continues to toss until two of a kind appear, which is a miss. The counters are ten little sticks in a general pile from which each player draws his score. When this pile is exhausted, they draw upon the opposing party's counters, until one party has all ten.

Stick dice (*tiliwiga*, also playing cards) may be played at any season. Four men or women are on a side: each member of one party makes one throw, then the dice pass to the other side. They sit about an incomplete circle of small stones, 60 cm. in diameter, with a larger stone at its center. One such stone is a fragment of mano with a red cross on its face. The three dice are flat wooden billets, 3 cm. wide and 8 to 13 cm. long, with all angles rounded. These are marked with red paint on one face: usually a broad median line, sometimes a waved median line. Two sets have all three differently marked: one (50.2-1618) has a zigzag line on one, the other two are colored over the whole face and in addition one has a continuous band of diamonds incised; the second set (50.2-1619) has a median line, a cross, and three cross bands. These lines are commonly painted with the finger tip. The three dice are held between the two palms and cast on the center stone end on, but a little diagonally to cause them to bounce beyond it. The scores are: all blanks, ten; all reds, five; two reds, three; and one red, said to count one but the marker is moved over two stones. Each party has one of these markers, a little stick. These are started at the gap in the circle and advanced in opposite directions. If a throw brings the marker on the space occupied by

524 that of the opponents, the latter is "killed" and must return to the starting place. The party first to complete the circuit wins.[1]

For the hidden-ball game (*adhorigd*) two furrows are dug in line, but some distance apart. The loose sand is heaped in a ridge down the center of the furrow. The hiding ball, about 4 cm. diameter, is cut from a yucca root. The sixteen tally sticks (*athiud*), peeled twigs about 20 cm. long, are stuck upright in the ground midway between the two holes. The hider thrusts his hand containing the ball through one sand ridge, and as he draws it back, re-building the ridge over his forearm, leaves the ball in it. He then divides the ridge into four piles. Sometimes a blanket is held up to conceal his movements. To help conceal it, he sings:—

[538] wi ga imai nu'u maga djawikí'ma tama wi'l ya
you don't know
amdja tama wi'l ta hĭm ma yaga wi[2]
to go back and forth

The opposing party approaches to guess in which pile the ball is hidden. This is accompanied by much banter, exactly as Ewing describes for the Walapai.[3] If they guess correctly they hide the ball in turn in their own furrow. If wrong, the hiding party takes a counter. The guessers are often given a second chance, but for each wrong decision the hiders take a counter. When all the counters have been taken from the central pile, they begin to draw on their opponents'. The side cornering all sixteen wins. When the hider has lost nearly all his counters, he sings:—

[539] aihumo'dj mavagigina kavinykyuyé^yúié'ē
(want my) counters (to) return (I am) expiring.

When having good luck he sings a meaningless refrain:—

pikĭtágí'ná do wo wo wa (repeat)
pikĭtágí'ná dö'haaaa

524 Children of four hide the ball with all the characteristic motions of their
857 elders, although they do not play seriously until they are somewhat older.

Dolls (*gaudí'ī*, something to play with) are made of cedarbark for the use of little girls. String figures are made by children alone. Children put corn tassels in their hair, playing it is long.

Slings (*wiliirá*) are playthings used only by boys for hurling stones at birds. The sling is fashioned of a rectangular piece of skin, having

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[1] Culin, Op. cit., [illegible]. I failed to note how the chance passes to another player.
[2] This was sung in unstressed syllables, so that it proved impossible to divide it into words.
[3] Culin, Op. cit., 371.

the corners cut off obliquely, and with a thong in each end. One of the 524
thongs is provided with a loop to slip over the forefinger. 857

SUICIDE

Suicides, like the insane, are rare. The practice is referred to in 762
myths and in funeral speeches, and is credited to the Walapai, yet there
have been no instances for a generation.

Occasionally, a man or woman gets into many difficulties, whereupon everyone blames him, calls him bad. He thinks it is no use to remain alive longer, or he feels spiteful and wants to earn the name truly; then he may fall sick and die. Suicides are regarded as crazy.

> Once I [Sinyella] saw a suicide, Tohawaga's elder brother, a lad of sixteen. I
> do not know what they were angry about, but they fought all the time. Tohawaga's
> father told him to behave: "I told you repeatedly, but you do not stop." Then he
> beat him. The brother took a pistol from his belt and shot himself through the throat.
> They threw his body over the cliff above Bridal Veil Falls [this is the mode of killing [766]
> horses after the death of their owner], for they would not give the usual burial to a
> suicide. I do not know where the soul of a suicide goes.

When mourners grieve for their relatives, the chiefs console them, 624
saying, in the course of their harangues, "You will not long be alive. 765
Soon you will sicken and die and go the same way. Now you must be
good. Do not kill yourself."

COMPARATIVE NOTES

The details of construction and use of the sweatlodge would afford 171
good evidence of historic connection were there sufficient comparative 345
material. The Havasupai type, a small dome-shaped lodge, is probably
in general use through the western plateaus and the Plains. Its equivalent among the Pueblos is the estufa (ceremonial chamber-dormitory) of Spanish days. There is some evidence that it was not in use along the lower Colorado. The Mohave did not have a regular lodge but used a closed dwelling in the manner of the Californian assembly house. Mr. E. W. Gifford informs me that neither the Yuma nor Cocopa used it, yet Trippel refers to the Yuma use in the girls' puberty rites. It was probably not used by the desert Shoshoneans of adjacent California. The Washo, according to Doctor R. H. Lowie, do not use it. There is no mention of it in Russell's account of the Pima; hence, it may be lacking there as well. Finally, the Shivwits believe that they recently acquired it from the Walapai. The well-known type of assembly or dance house takes its place in northern California. Powers places the dividing line at Sacramento City: south of there the small lodge is used.[1]

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[1] Kroeber, (a), 277; Trippel, 309; Lowie, (i), 307 f; Powers, 380.

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Wherever described, the shape of the lodge is given as hemispherical with the exception of the Luiseño and Cahuilla. The Navaho lodge is sub-conical, which parallels the departure of their hogan from the usual dome-shaped house of this region. The Cahuilla structure is somewhat like a rectangular pyramid; the Luiseño gable-shaped. But although these are of such size as to suggest the assembly house to the north, they were not used for ceremonies. The Salinan have both the small lodge and the large dance house.

Salinan, Luiseño, and Cahuilla had a fire in the center of the sweat-lodge; others carried heated stones inside (Havasupai, Navaho, Yuma, Southern Maidu, Klamath, Paviotso, Southern Ute, Wind River, and Kutenai). The Western Apache custom is not stated. The stones are placed to the left of the entrance (as one goes in) by the Havasupai and occupy a similar position in the Navaho lodge, where they are always on the north side, the lodge usually facing west. Water is sprinkled on the stones by all these groups, except the Southern Ute and perhaps some Navaho.[1]

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The regular Havasupai pattern for a race is to a point and return. I do not know how general this may be, for the only other references found are widely scattered: Huichol, Northern Shoshoni, Puget Sound Salish, and Alaskan Eskimo.[2]

Such references as occur to ball juggling in this area uniformly ascribe it to women alone: Havasupai, Zuñi, Paiute, Uintah Ute, Wind River Shoshoni (where women walk about as among Havasupai), and Bannock. It is a girl's pastime among the Naskapi also, but this is not specified as the Eskimo and Achomawi usage.[3]

Archery games are perhaps so common that only specific details can be accepted as defining analogs of the Havasupai customs. Achomawi and Atsugewi shoot at a rolling target, a disk of bark.[4] The game of shooting at a hidden cactus is very similar to one of the Pima, and less so to those of Zuñi and Hopi.[5]

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The question of the aboriginal nature of the musical bow in America excited considerable interest years ago. There seem to be at least two instruments involved which should not be confused. The first is hardly a musical instrument; the Havasupai hold the ordinary bow in the

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[1] Kroeber, (g), 64; Du Bois, (c), 163; Mason, J. A., (a), 130; Gatschet, (b), [illegible]; Barrett, (a), [illegible]; Franciscan Fathers, [illegible], 340-3; Matthews, (d), [illegible]; Mindeleff, [illegible]; Stephen, (b), [illegible]; Letherman, [illegible]; [illegible], 33; Chamberlain, (a), 367; (b), 154; [illegible], (b), 61.
[2] Lumholtz, (c), II, 68; Lowie, (a), 217; [illegible], 84; Culin, (b), [illegible].
[3] Culin, (b), 713 f; Lowie, (a), 190; Dorsey, G. A., (e).
[4] Dixon, (c), 21[illegible].
[5] Russell, (d), 178; Culin, (b), [illegible].

mouth, while tapping it, to make an opponent falter. Northwestern 171
and Southern Maidu shamans similarly hold a special bow to converse 534
with spirits; the Northeastern Maidu use an ordinary bow for amusement only. For amusement, the Eastern Pomo tap a bow provided with two strings and held in the mouth. The San Antonio Salinan and Yokuts also use a special bow with the mouth as a resonance chamber. The usage crops up again among the Maya and again in western central Patagonia; the bow is held in the mouth while the string is tapped. The Tepecano place an ordinary bow on a gourd and tap the string as an accompaniment to the recital of prayers.[1] The other type of instrument has several strings, often tuning pegs and a bridge, and is described as a fiddle or guitar. This is on record for the White Mountain and San Carlos Apache, Yokuts, Tule, "Pueblo" of New Mexico, and in South America among Busintana, Araucanians, Patagonians, and tribes on the lower Amazon.[2] Musical bows of undescribed nature are credited to the Tepehuane, Cora, and Huichol of Mexico, and the Lencas of Honduras, the Chané, Choroti, and Mataco of the Gran Chaco. Saville also believes in their possible existence in Central America, Guatemala, and San Salvador.[3] Balfour holds that the musical bow was introduced into the West Indies, South, and North America by negroes.[4] Nordenskiöld favors white or negro sources for the South American examples. This may apply well enough to the multiple stringed affair, but there is no reason why the use of the ordinary bow should be viewed in this way. This is not a specialized instrument; it is not really a musical instrument at all; and the twanging of a bowstring with the mouth as a resonator, which can be appreciated by the player alone, must have repeatedly occurred. Its sporadic distribution as a regular usage bears this out. It seems unlikely that there is any historical connection between the several occurrences of the mouth-bow, with the exception of the Californian-Havasupai cases. It is doubtful that this is derived from the fiddle type.

Shinney is played generally throughout the Southwest. Havasupai 171
and Hopi play it in the spring. Zuñi, Hopi, Havasupai, Walapai, and 526
presumably Mohave bury the ball at the center of the field. There is some similarity in the name for the game: Havasupai *[illegible]*, Walapai

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[1] [illegible] 86; Mason, J. A., (c), 187; Kroeber, (7), 19, note 67; Saville, (a), 272; Ten Kate, 88. According to Dr. Edwin Loeb the Western Pomo do not have it.

[2] [illegible], (d), 10, 16; Mason, J. A., (b), 67; Hrdlička, (d), 600; Pearson, Fig. 38; Mason, O. T., (b), 260; Nordenskiöld, 163, 167.

[3] Handbook of the American Indians, I, 960; Lumholtz, (a), I, 478, II, 156; Mason, O. T., (d), 180; Saville, (b), 203-204.

[4] Balfour, 30-61.

171 526 *tas-o-on*, Yuma *cho-tah-sah*, Navaho *ndashdilhá'l*, and Hopi *ta-taic'-la-la-wâh* (ball, *ta-tci*).[1]

The hoop and pole game is recorded in the Southwest for the Yuma, Mohave, Northern and Southern Diegueño, Gabrielino, Havasupai, Paiute, Navaho, Mescalero and Western Apache, Hopi, Zuñi, Laguna, and Isleta. The manner of playing it is almost identical among the Havasupai, Walapai,[2] Mohave, Southern Diegueño, and perhaps Yuma. Southern Diegueño, Mohave, and Havasupai poles have one or two rings encircling the butt; the White Mountain Apache have many, but the ring nearest the butt counts highest. Apparently all these groups use the simple hoop without netting, except the White Mountain Apache, Isleta, and Paiute. It has a central core wrapped with buckskin among Gabrielino, Walapai, Havasupai, Navaho, and Wind River Shoshoni, while that of the Hopi is cornhusk. The White Mountain Apache and Southern Diegueño cast the hoop in the same way as the Havasupai. These two have the two poles represent the sexes.[3]

Culin and others give little material on the cup and pin game in the Southwest. Pima, Zuñi, and the Tewa of Hano use a form with one or more rings: Havasupai and Paiute use a rabbit skull.[4] The Moapa reckoning is identical with that of the Havasupai, except for the incisor hole count.[5]

171 524 Basket dice is a widely distributed game, and the Havasupai have no special form of it. It is generally a woman's game in this area, but played by both sexes among Navaho, Zuñi, and Mohave, although the first consider it especially a man's game. The number of dice varies, but not randomly: Havasupai, Maricopa, and Pima, four; Mohave, four but only three are used in play; Zuñi, four or five; Paviotso and Washo, twelve. These are all long wooden or bone dice. White Mountain Apache use thirteen or fourteen small chips; Navaho, thirteen or seven. By way of comparison, the Yokuts (of Fort Tejon and Tule River) use eight nut shells, the Tejon, six. In another form of dice game in this area the Zuñi use small chips, three lozenges and two squares, thrown from a board; the Wind River Shoshoni, three lozenges and three disks, tossed in a basket. The Mohave and Pima games are included here although no basket is used to toss the dice. The absence of the basket

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[1] Culin, (b), 494, 498, 446-7; Trippel, 6; Curtis, XII, 48.

[2] The Walapai names for game, hoop, and pole, are the phonetic equivalents of the Havasupai (Culin, (b), 503).

[3] Culin, (b), 449-520; Trippel, 5; [illegible], 60; Franciscan Fathers, 482; Lowie, (1), 201; Spier, (c), 350; Reid, 19; Du Bois, (c), 167.

[4] The only other recorded uses of a skull are among Labrador and West Greenland Eskimo (Culin, (b), 549; Porsild, 257).

[5] Culin, (b), 548-560; Lowie, (2), 227.

seems a local variation, for no basket is mentioned in connection with the Maricopa game. The White Mountain Apache and Wind River Shoshoni strike the basket on the ground. The latter sometimes throw the dice into the basket and the Yokuts always do. These resemblances may not be significant, but the answer lies in what the custom may be in the intervening areas. The scoring is variable, but there are identities. All four faces up count one for Havasupai, Mohave, Maricopa, and Pima. All faces down count one for the first pair, two for the second pair of tribes. Any other throw does not score for any of them. It is clear that they clearly recognize that all of a kind is necessarily the most infrequent throw.[1] 171 524

Stick dice is essentially a Southwestern and north Mexican game. Comparative notes are tabulated below. I have assumed that the essentials of this form of the dice game are (1) striking the sticks on something so that they fall on the rebound, and (2) noting the scores on markers arranged in a circle or square. A case is included here if either of these features appear.[2]

In addition to the groups below, Lummis notes its occurrence in the Pueblos of Sandia, San Felipe, Santo Domingo, Tesuque, San Ildefonso, and doubtfully, San Juan. He did not see it at Jemez, Pojoaque, or Picuris. It may be played by Yuma and Mohave as a note by Ten Kate suggests. Mooney ascribes it to the Comanche and "Apache of the southern plains." Pawnee and Arapaho dice accompanied by a square of hide, which may have served as a surface on which to bounce them, suggest that this game may have been known to them also. Lumholtz says that it is played by all the tribes who live in or near the sierras of Chihuahua (and by the Mexicans), but is not known south of the State of Durango. The Opata and the Zuaque of Sinaloa may be added. It is unknown to the Cora and Tarasco.[3]

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[1] Culin, (b), 91-224; Parsons, 379; Lowie, (l), 260, 262.

[2] Culin, (b), 97-221; Franciscan Fathers, 441; Dorsey, G. A., (b), 187; Lowie, (l), 260; (m), 186; Russell, (d), 174; Curtis, XII, 48.

[3] Culin, (b), 84, 96, 127, 146, 151, 154, 158.

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	Number of dice	*Struck on center stone, or*	*Circle of stones, or*	*Number of stones*	*Marker called "horse" or*	*Opponent's marker "killed"*	*Scores*					*Circuits per game*
							All back	*1 front*	*2 front*	*3 front*	*All front*	
Wind River Shoshoni	4	×										
Lemhi	4	×					10		to		5	
Paviotso	6		sticks									semicircle
Paiute	3	ground										
Yokuts	3		?	25		?	16		to		1	
Gabrielino	3	ground										
Northern Diegueño	4		board: square with wings	40 holes								
Pima	4	ground or struck up from hand	square with wings	40 holes	horse or slave	×	10	15, 14, 6, 4	2	3	5	
Papago	4	struck up from hand	square with wings	40 holes	×	×	10	15, 14, 6, 4	2	3	5	1
Walapai	3	×	×	50			10	1	3		5	semicircle
Havasupai	3	×	×	indefinite		×	10	1, 2	3		5	1
Oraibi	3 or 2	floor	inscribed stone with wing	–	animal		2				1	
Hopi	3	×	×	4×10		×	10	1	3		5	1
Hano	3		×	4×10			10	2	3		5	
White Mountain Apache	3	×	×	4×10		×	10	1, 2	3		5	1 or 3
Zuñi	3	×	×	4×10	×	×	{10	2	3		5	1 or 4
							{10	3	2		5	

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	Number of dice	Struck on center stone, or	Circle of stones, or	Number of stones	Marker called "horse" or	Opponent's marker "killed"	Scores					Circuits per game
							All back	1 front	2 front	4 front	All front	
Navaho	3	×	Circle or square	4×10			10 10	2 0	3 0		5 5	
Acoma	3		×	3×10	×		10	3	2		5	
Laguna	3	×	×	4×10	×	×	10	2	3, 15		5	1 or more
Isleta	3	×	×	4×10	×	×	10	2 2, 10*	3 3, 15		5 5	
Sia	4		square	4×10			10	3	2	..	6	
Cochiti	3	×	×	40			10	2	2, 15		5	
Santa Clara	4 or 3	×	square	40	×	×	10 10	3 1	.. 3, 15		5 5	1
Nambé	3	×	×	4×10	×	×	10	1	3, 15		5	1
Taos	3	×	×*	16×10	×	×	10	1	1, 15		5	semicircle
Comanche	12	×										100 points
Kiowa	4	×	marked blanket	4 ×10		×	10	1	2	3	6	8 or more 8?
Caddo	4	board										
Tarahumare	4	stones	square with wings	4×10 holes		×			quince			
Tepehuane	4		square with wings	4×10 holes					quince			

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The unity of this game complex is quite obvious. Ordinarily, three dice are used; the cases where there are more are by no means randomly distributed. Four are used by the Northern Diegueño, and all the Piman groups. This occurs again at Sia, Santa Clara, and among Kiowa and Caddo.[1] It is quite likely that all these form one group, since the game is called by its Spanish name (quince, fifteen) both in Mexico and in these Pueblos. We might be more certain of this if we knew the scoring in Mexico. It is, of course, possible that at least this special form was carried by Mexicans from one region to the other. The Wind River use of four dice is not clearly connected with these.

The use of eight dice by Paiute, Gabrielino, and Yokuts is an interesting case of coalescence of two games, for in this region the basket dice usually number eight.

Note also that the Paiute, Gabrielino, the Hopi of Oraibi, and Pima strike the dice on the ground. Pima and Papago share the custom of striking them upward from the hand with a flat stone, rather than the usual one of bouncing them on the stone.

The circle of stones, etc., which serves as a counting board is very general; even the diagram marked on a blanket by the Kiowa is of this pattern. The exceptional form is a square, from corners of which there are sometimes pendent lines or wings of stones from which the markers start. These are two or four in number and curved in shape. This establishes again a definite relationship between Northern Diegueño, Pima, Papago, Tarahumare, and Tepehuane. The inscribed stone used by some Hopi has a wing extending into the figure which also serves as the starting point. The use of the square at Sia and Santa Clara is further evidence of their connection with the Mexican tribes. The square is also used by some Navaho.

The number of points in the circle is quite uniformly forty, divided into quadrants of ten. At Taos the process has been carried one step further, each of these quadrants being again divided in four. The only aberrant cases are the Havasupai, Walapai, and Yokuts, and in the last case it is not certain that we are dealing with the same game.

The markers are commonly called horses. At Zuñi these are little figurines of horses. It is equally common to find that the marker is sent back to the starting point ("killed") if another enters the space it occupies.

The definite identity of the complex is clearly established by the scoring system. Almost universally, a score all of one kind counts ten, its opposite five. The intermediate scores usually have the same progression up to five. In some of the systems a mark on one of the dice 171 524 brings in another variable, so that two fronts (in a total of three sticks) counts three (or two or one) and the same throw with one of these fronts a marked piece, fifteen. This is the scoring at Laguna, Cochiti, Santa Clara, and Taos. This is probably also the case at Isleta and Nambé but the descriptions are not clear. All four sticks are separately marked by the Pima and Papago, so that a throw of any one of these marked sides counts variously fifteen, fourteen, six, and four. The entire scoring system is arbitrary and not at all dependent on the probability of occurrence of any score; hence, the use of fifteen as the highest score constitutes a further proof of historic connection among those tribes already coupled by the use of the square and four sticks.

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[1] No description of the Caddo game is given, but they have a board used in connection with four dice and eight counters, which suggests an equivalent to the Kiowa game.

Culin has grouped together the moccasin game and the hidden ball 114 game as variants of a single form.[1] To be sure, the fundamental concept 171 is the same; an object is hidden in one of four moccasins, mounds, or tubes. Yet, the areas of distribution are so distinct as to render historical 524 connection improbable. The moccasin game is found among the Cheyenne,[2] Dakota, Southern Siouans, Assiniboin,[3] Central Algonkins, and Iroquois; the mound and tube forms are distinctly Southwestern. The basic ideas are quite simple: the notion of seeking a hidden object may arise anywhere, and that it be in one of four places seems only an application of the common pattern number four. Thus so far as these games are alike it seems a case of convergence.[4] The difficulty in accepting this view is the partial similarity in the scoring.

There are two forms of the hidden ball game in the Southwest. The 171 Havasupai type in which the ball is hidden in one of four mounds is 524 known to the Walapai, Mohave,[5] Maricopa, Navaho, and by mythical reference to the Sia. The Havasupai and Walapai games are identical; the mounds are constructed in two furrows, the ball is made of yucca root, and the counters are drawn one at a time until all sixteen are obtained. In the Navaho game a moccasin is buried in each mound in the furrow and in this a stone ball is hidden. This suggests a connection with the moccasin game to the north, in that the two games have here coalesced. But it is difficult to see how the connection can have taken place.

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[1] Culin, (b), [illegible].

[2] Grinnell, (b), I, [illegible].

[3] Lowie, (b), [illegible].

[4] The Nootka and Kwakiutl hiding game in which four men are given four guesses shows how the same pattern has resulted in a different form (Culin, (b), [illegible]).

[5] Kroeber, (i), [illegible].

171 524 The other form is known locally as cañute (Spanish caña, reed) which takes its name from the four tubes or segments of reed in which the object is hidden. This is played by the Ute,[1] Jicarilla, at Taos, San Juan, San Ildefonso,[2] Santa Clara, Jemez, Isleta, Sia, Laguna, Acoma, Zuñi, Hano, by the Hopi, Pima, Maricopa, Papago, and the Zuaque of Rio Fuerte, Sinaloa. These two forms of the game seem to be related, at least in that the tubes are stuck in a mound at San Ildefonso, Santa Clara, Zuñi, Zuaque, and sometimes Taos; and they are filled with sand by the Tewa of Hano, Pima, and Papago.

The scoring in the cañute game is curious and arbitrary. In general, the object is to find the ball in the third tube chosen, when the privilege of hiding passes to the victor, but he gains no counters. If it is located on the first trial the guesser loses ten points, on the second, six, and if it remains in the fourth tube, four. That is, points are gained only as the opponent loses. This is the scoring of San Ildefonso, Laguna, Hano, probably Taos, Santa Clara, Navaho, and at least sometimes at Zuñi. The Papago and Pima have an analogous count: losing ten, six, or four to the opponent, depending on which tube the ball is hidden in. The description suggests that the choice really corresponds to leaving the ball in the fourth tube.

The method of determining which side shall first hide the pellet shows some historical connections. Among the Papago both hide a pellet and guess as many times as is necessary before one alone makes a correct guess. The Pima method seems to be similar. At San Ildefonso one of them must find the ball hidden in one of two tubes at his first trial. This seems also to be the case at Nambé. This couples the Piman and Tewan groups. On the other hand, a different method is used in the center of the area: Hopi, Navaho, Zuñi, and Acoma toss a leaf, chip, or disk to decide.

The total number of points needed to win is generally of the same order: Navaho, 102, Zuñi, 100+2, Hano and Jicarilla 104, Laguna, 100+4, Pima, 100 (or its multiple), Papago, 50 or 100 or more, Oraibi, 50, San Ildefonso, 50 to 200. The total is variable at Santa Clara, ten by a different count at Walpi, and among the Hopi at large eight consecutive correct guesses.

171 192 524 It is noteworthy that the name of the game is very variable. The exceptions show obvious connections: Havasupai and Walapai, Papago and Pima. On the other hand, there are similarities in the names given

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[1] Lowie, (l), [illegible].
[2] Harrington, (b).

the tubes and in their markings which connect the Gila tribes with the Tewa and their neighbors. The following table gives the names in translation, the native terms being retained only where no translation is given or where they will show connections. The names are not always explicitly attached to Culin's illustrations, so I have taken the liberty of assuming the appropriate connection. This applies to the material from Santa Clara, Taos, and Papago. 171 524 192

	One End Marked	*Two Ends Marked*	*All Over, or Ends and Middle*	*Middle Marked*	*Unmarked*
Nambé	one	two	mulato[1]	chinchado[1] (girdled)	
Santa Clara	one	two	señ-dō' (old)	girthed	
Taos	one	two	mulata (tawney)	girthed	
San Ildefonso	one	two	mulâtqǫde (old mule)	tí'ǫ (el hinchado, swollen)	
Jemez	at the top	at two places	speckled	in the middle	
Isleta	one	two	spotted		
Sia	×	×	×	×	
Hopi	×	×	×	×	
Hano	pemopeni	poyopeni	wihipeni	kepeni	
Pima	ma-atcovoh		old man	middle black	old woman
Papago	ínâ-ok ju sal		old man	made black	old woman
Maricopa	hiyaquimyorsh		old man	tok-gum-yorsh	old woman

Harrington suggests that the San Ildefonso names translated "old mule" and "swollen" are their folk-etymologies for their equivalents of the common Spanish names mulato and chinchado.[2] I would suggest further a possible connection of the Santa Clara "old" (or old man?) and this "old mule" with the Pima-Papago-Maricopa "old man."

Among some of the groups the hider arranges the tubes in a definite pattern. At San Ildefonso there are a whole host of such arrangements, each with its appropriate name, but at Jemez, Isleta, and Taos, there are none. At Acoma it is said they are laid on their ends or sides, or in fantastic ways. The Papago and Pima guesser crosses one pair of tubes and picks up one of the others. The Zuñi arrange them in a square or a 171 524

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[1] I have transposed these names because the names as given in Culin's account (360) obviously do not agree with the markings. These will then agree with the Santa Clara and Taos names which Harrington [(b), 261] has identified with the San Ildefonso analogs.

[2] Harrington, (b), 249-251.

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triangle with the fourth reed beside it, the Hopi in a square or row. (The Havasupai, Walapai, and Navaho arrange the sand piles in a row). The latter cases suggest cultural connection, but this need not be true for the Piman and Tewan groups.

The discontinuous distribution of the moccasin game and the hidden ball game seems established despite the Navaho case. I do not find either game recorded for the Arapaho, Kiowa, Wichita, or others in the intervening area. There is, however, some similarity in the scoring. The Ojibwa player loses points unless he finds the object on the third trial, the Winnebago and possibly the Ottawa and Cree on the fourth, and the Santee in the second of three moccasins. On the winning trial the guesser gains points; a feature wholly absent in the Southwest. The value of points lost or gained in the successive trials bears no relation to the chances involved. In the Cheyenne game the guesser loses a point unless he succeeds on the first trial. Among the other tribes for whom we have data—Menomini, Omaha, Seneca, and Wyandot—the notion is rather of winning points by successive guesses. The scoring is quite variable throughout this area, but the principle of avoiding the object on the earlier trials is found only in one compact area, including at least Santee, Ojibwa, and Winnebago.

The question is whether this similarity is due to borrowing or convergence. I think it can be shown that the latter is involved. In making a choice of this kind, the guesser can either wager that he will find the object or that he will not. It does not matter how many trials are permitted, these are the only alternatives and they apply with equal force to each trial. Of these possibilities one must be decided on. Whether to lose points for a failure to find the ball or for finding it, or to win points for the same, or merely to win the right to hide the object, must also be decided, but this is in no way dependent on the decision to find or to avoid.

The Southwestern tribes have in general decided to avoid the object on all save one trial; so have the Ojibwa, Santee, and Winnebago. The Havasupai, Walapai, Cheyenne, and the other eastern groups have chosen the other alternative, to find the object. So much of the similarity is clearly accidental.

If the decision is to avoid the object it must be found on some other than the first trial. There are three possibilities. The Southwestern tribes, east of the Havasupai, have uniformly prescribed the third trial. On the other hand, the Eastern Woodland tribes have variously hit on the second, third, or fourth. The only real similarity then is in the case of the Ojibwa; this then may be set down to accident.

Furthermore, there is no similarity between the values in the scoring systems of the Southwest and the eastern area. All include arbitrary values not dependent on chance. This is clearly the case in the east, where the Winnebago, for example, have the same number of points (four) lost or won in each trial, although the chances necessarily change. In the Southwest the order of the losers (10, 6, 0, 4) is dependent on chance, but not the actual values. If we consider the position of the guesser, who endeavors to avoid the ball until the third trial, we see he has three chances to one in his favor on the first trial, two to one on the second, an even chance on the third, and certainty of failure on the last. Taking 10 as the highest penalty, this should apply, as it does, on the first trial: the others should be in order, 7.5, 5, and 2.5. There are two arbitrary elements here; the actual values and the choice of the third trial for success rather than the fourth.

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HISTORICAL TALES

A YAVAPAI RAID[1]

539 A little way above Lee Canyon in Cataract Canyon were some Havasupai camps. Three Yavapai[2] men came down the main canyon. Just a little way from the camp were some horses. A boy was sent to look for them early one morning. He could not find them. "I saw tracks where someone has driven the horses up the canyon," he said. My paternal grandfather, Big Jim's father and another man[3] followed the tracks up the canyon. They thought those men would go out by the Moki trial, but they did not; the tracks led on up Cataract Canyon. They thought that the three men might go out by another trail far up the canyon. Perhaps the enemy did not know that trail, for they kept right on up the canyon. When they were far up, the Yavapai stopped a little while. They were famished; they were going to kill one of the horses and roast the flesh. They gathered wood in a big pile. The three Havasupai came up and saw them. When the Yavapai saw them coming, they were afraid and ran off and climbed up the cliff. The Havasupai reached the horses, where the Yavapai had tied them. They untied them and led them off a little way. Then the Yávapai on the cliff said, "We got your horses, but we did not kill any. They are all alive; now that you came and got them, it is all right again. Just go right home." My grandfather said, "You are no good; if you had come down to our houses, it would have been all right. But you did wrong; you stole all our horses. We are going to kill all three of you. You made us run afoot and we are very tired; now we have got you here. I will send one of my men on a good running horse down to the village, to tell more to come. Then we will kill you three.[4]" So he sent one on a fast horse.

He got down here at the village very quickly and told the people. Some of them had good horses which they got ready, with some buckskins for shields, and rode up there where the enemy were. The Havasupai big chief, my grandfather, said to the enemy, "You Yavapai are no good. You stole all our horses; you are pretty bad men. We will do just as you intended; we will fight you—but we will kill all of you." Then they

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[1] These historical tales were told by Sinyella. The first apparently dates from the first half of the last century.

[701] [2] These raiding parties were probably throughout comprised of both Yavapai and Western Apache. They were described as [illegible], meaning specifically Yavapai, but generically enemy. This was translated as Apache, which is used interchangeably with Apache-Mohave for the Yavapai when speaking English.

[3] The narrator's interest seems to lie throughout in stating precisely who took part. The dead are rarely called by name.

[4] The colloquy between enemies is quite characteristic. One wonders if, despite their seriousness, these affrays are not in a sense blustering games.

began to shoot at each other. There were many Havasupai; some of 539
them went around and climbed up to the cliff; some did the same on the other side of the enemy; and some went right straight up the talus slope toward them. They kept shooting; all shot at once, and each time a lot of arrows flew at the Yavapai. In a short time, those three were wounded all over, but none of the Havasupai were wounded. After a time the Yavapai hid behind a big rock and built up a wall there. They were badly hurt, so they climbed up the white cliff where there was a somewhat better place to stay. They kept shooting down from there. The Havasupai big chief said, "Do not shoot too many arrows up there; just one or two of you shoot once in a while. If a lot of arrows are shot there, they can use them to shoot back." The three Yavapai kept shooting until they had no more arrows. Right up there where they were there were some small rocks. They rolled them down, until they had no more; they had nothing left. By this time the sun had set and it was dark. All the Havasupai were down at the foot of the cliff; they camped there, watching the Yavapai to prevent their escape. So they stayed all night.

In the morning the Havasupai cooked and ate until their stomachs were filled tight and they felt strong. My grandfather said to Panamida's father, "You are the man: I want you to climb up." Just two men climbed up; the other was Manakadja's father's father. The enemy threw some little stones at them. The latter parried the stones with buckskins hung from their left arms. They kept on climbing until they got there. Then Panamida's father seized one of them by the hand and pulled them down after him. Then he led the other two down similarly to where the other Havasupai were. All of them walked together down to the bottom of the canyon. They gave them some food to eat. Then they killed them one at a time. They cut around their heads just above the eyes and ears, and pulled off their scalps, throwing the bodies aside.

The Havasupai big chief said, "Let us take the scalps of these three 539
men home with us to show the women and children and the old men." 727
They brought the three scalps to the camps above Lee Canyon to let the women and children there see them. Then those people moved down here to the village. They showed the three scalps to everyone. They gave them to an old woman, who washed them with soapweed and cleaned them. A man got a good straight pole and tied all three scalps to its top. Some of the men cleared the ground and set up the pole; then everybody, men and women, came to see the scalps hung up there. Everybody felt glad and wanted to dance. Everyone danced around and hollered, clapping their mouths. The Havasupai said to the three scalps, 539

539 "A long time ago some Sekiydigitig[1] were bad men. You came down here to steal and kill as though they had come to life. So we killed all three of you. You know we never go over to your country. We stay here and are good. You three were pretty bad men, so when you came down here we killed you all."

THE YAVAPAI RAID OF 1855

When I was ten years old [about 1855] the enemy came down into the canyon. There was one Havasupai camp where Smiley's house is now [see map, Fig. 50, no. 58]. Doctor Tommy's father, a Walapai, who had a camp near Pine Spring, came down to see his relatives near Smiley's place. After he had been here a few sleeps, some Yavapai came down and killed a Havasupai man and Doctor Tommy's father. They killed two. I saw them. It was just at dawn; after they killed the two, they went right back. They hollered when they killed the men; we heard them and were scared, so I ran and climbed to the top of the red cliff [the upper canyon level]. I was living on the west side just where the canyon turns above Navajo Falls. Then all the Havasupai followed the enemy. The Yavapai got a lot of things, buckskin, food, etc., and carried it on their heads and backs. The Havasupai followed and caught up with them a little above the head of the creek. The Havasupai called to them; the latter looked back, saw them coming and threw off their loads. They shot; pulled out their arrows from their quivers and shot at the Havasupai. They lined up on one side of the canyon bottom, the Havasupai on the other. Each party shot at the other: the Havasupai kept right on up the canyon, while the enemy stood their ground, shooting. The head chief, Captain Navajo, had a gun; Big Jim's father and another man also had guns; there were just three guns. These three men were sitting close together; one shot first, then his neighbor, then the third. When the enemy saw the guns, they were scared, and ran off. They said, "I wonder what that thing is they are shooting with. We never saw guns" [?] They kept on going.

I did not go with them; I did not see the fight. I was only a little boy; I was scared and ran away, and then I stayed at home.

The enemy went a little way and stopped to fight again. They hit Barney's father in the bridge of the nose. They went on again. Six or seven Havasupai climbed up on the west side of the canyon where a trail led along the lower cliff face. Where they climbed up, the canyon is very narrow. There they waited until the enemy came up the canyon. These

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[1] The animal-men characters of the myths.

Havasupai held their fire until some had passed this narrow place. One 539 of the Havasupai following in the canyon bottom could see those men standing on a point of the cliff. He called up to them, "They are right below you now. Now is the time to shoot." One of the enemy heard him shouting and looked up to where the Havasupai were standing with drawn bows. Then the enemy cried, "ex ha"; ran across the wash to the opposite cliff and then on up the canyon. The Havasupai on the cliff ran along and waited for the Yavapai to come. But the enemy saw them, because they now knew they were there. So the Yavapai stopped a little while and shot up at them. They hit one up there, making a flesh wound in his thigh. Then one Yavapai stood and spoke to the Havasupai. One of the Havasupai had a little pistol which he shot at the man, hitting him under the ear, the bullet lodging at the back of his head. I saw him long afterwards, when he was a good man; he told me the bullet was still there.

The Yavapai went on without stopping until they were far above Lee Canyon, when they stopped again. They shot at each other. None of the Yavapai were hit. Then two or three Havasupai came back to get more buckskin and arrows and some black powder, percussion caps, and bullets. The enemy went on again up the canyon. After they had gone a long way, they stopped on a little brush-covered, isolated hill. It was nearly midday and the enemy were tired, so they rested there. The Havasupai surrounded it; they kept shooting. Some of the Yavapai were wounded. One of them had a bullet wound; he died there. They fought all afternoon. Then the Havasupai said, "We feel hungry now. Two or three men should go back to the village and bring something to eat." So two or three came back and got pumpkins, squash, beans, cornmeal mush, water melons—everything was ripe about that time—and some water which they carried to them.

After that they felt stronger. Then the head chief, Navajo, said, "We feel strong now; we will go right up to the enemy. Grab them and kill them." They said, "All right." Two of them went in front, each holding a long stick from which hung a buckskin. Panamida's father, a chief, had one and Jess's mother's father had another. These two went in front, while the others followed close behind. They advanced up the hill, while the Yavapai stood up there. The two with buckskins carried iron hatchets in their free hands. When the Havasupai were within a few feet of the Yavapai, the latter shot right through the buckskin and stuck Jess's mother's father in the left shoulder, so that his arm got weak. He said, "My arm is getting weak. I cannot hold it up much longer;

589 we had better go back." So they walked back, while he held the skin up. Again they went up the hill with two men in advance with buckskins, until they were within a few feet of the enemy. When Panamida's father, who carried a skin, lowered his arm to look over, the Yavapai shot again. They hit him above the left eye. Again the Havasupai walked back with the arrow still sticking in Panamida's father's forehead. They walked back a long way and pulled the arrow out. By this time the sun had set and it was dark. They built big fire all around that little hill, where the Yavapai still stayed. Near midnight the Havasupai shouted to the enemy, but no answer came back because they were gone.

In the morning they saw where the enemy had come down the hill, walked across the wash, and climbed up the lower red cliff. They were gone. They carried off the one who had died on the hill. They took the body up on the cliff and hid it away before they ran off. Two Yavapai had been badly wounded; they went with the others but both died on the road. Later their bones were found on the plateau just beyond the Moki trail, with their arrows, blankets and a little water jug near a little fire that had been made for them. There were about twenty Yavapai.

The Paiute Residence among the Walapai

When I was about eight years old a lot of Paiute came down here; that was the only time they ever came to our village. Not long after, when I was twelve years old we heard that a lot more had come to visit around Pine Spring. The Paiute were afraid of the Mormons.[1] They had been their friends. The Mormons had new guns. One of them had said he would give his gun to a Paiute man in exchange for a Paiute girl as a wife. The Mormon gave his gun to the Paiute: the latter gave a young girl to the Mormon. That girl did not like the Mormon, so she ran away and hid. Then the Mormon had no wife, so he wanted the gun returned. But the Paiute would not give it up. The Mormon wanted to get the gun back, so he fought the Paiute man and beat him with his fists. The other Paiute were very angry, so they killed that Mormon. There were a lot more Mormons living there and the Paiute were afraid they would take revenge, so they fled to the Colorado River ([illegible]).

The Walapai living near Pine Spring came down to our village and told us all to go to meet the Paiute. The Havasupai all went: I was with them. The Walapai and Havasupai stayed together on the plateau while the men of both tribes went down to where the Paiute were gathered on the north side of the river. There they saw that the Paiute had built a raft, a gridiron of poles lashed together. They saw them put their belongings on the raft and push it into the water. Men got on all sides and pushed it before them as they swam. Then they threw the things off and went back to ferry more, until all the women and children were across. This is what the Havasupai and Walapai told when they returned.

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[1] The white settlers of Utah were adherents of the Mormon faith.

Next day the Paiute came up on the plateau. I saw them; there were a great many. They came and camped with us. I saw that they did not wear many clothes. The men had bare bodies, breechclouts, but no leggings. The women wore only rabbitskin blankets on their bodies, tied over the right shoulder and down the right side; for skirts they wore doeskins with the hair on; some wore skirts of mountain sheep skin with the hair on. The skirts came down to their knees and hung even all around. All wore sandals of soapweed, which extended up around the foot only a little way. The women wore conical basket hats; the men had headbands of soapweed; some had their hair in a knot tied with yucca string. Their arrows alone were pretty good.

They stayed with us. After a time all the Paiute went hunting deer. When they killed some, the Havasupai traded blankets for the buckskin. The Paiute would give the skins of two good-sized bucks for a blanket measuring about two and a half by four feet.

We all stayed together for a short time; then a little snow fell. Two or three sleeps after that, the Paiute cleared the ground. The Paiute head chief said, "We are going to dance." He said this after the sun had gone down and it was a little dark. The Paiute man who had killed the Mormon had his body painted entirely with red earth as our women use. All he wore was a breechclout. He had a stick, about a foot long, with one eagle feather hung from the end and another from the middle, thrust upright in his headband on the right side. That man stood in the center of the dance ground; everybody formed a circle around him to dance just as we do here, but only the women sang. They sang two songs. I did not understand the words, but one was "Mormon." They felt glad about killing that Mormon. When the women had sung four songs, they stopped for the Paiute men to sing. The men sang while they all danced in a circle. The women danced first before the men joined them.

(I never saw those mythical (hikitpigat) times; the old folks told me of that. But these things of which I tell, I saw. I tell you about them; I give them to you.)

The Paiute who was painted red stood in the center for a little while only; then he joined the dance. It was just the same as we do

539 here; they would sing a song and then stop; sing again and stop again; all night long, until the sun rose. When the sun had risen a little, they finally stopped. The next night when it was dark, they danced again until sunrise. They did this for many nights; they did not stop at all. They stayed there for quite a long time, but the Havasupai all came back to our canyon.

We stayed there until the spring planting. Then the Paiute men came down here, but no women, bringing buckskins to trade for blankets and other things they wanted. After they traded they went back and stayed there until our corn was ripe, when they returned, bringing their women with them. They came to stay as long as they wanted. There was plenty of corn, squash, sunflower, watermelon, and other good food. So for several years [ten or fifteen?] they lived up there and visited us when our corn was ripe.

The Paiute stayed with the Walapai around Pine Spring. Two Paiute men married Walapai women. Manakadja got the daughter of one of the Paiute men for a second wife; he brought her down here. He was not a big chief then. That Paiute woman had four children.

The Paiute brought more buckskin and mescal every time they came down here to trade, and they stayed here as long as they liked. Not very long after this time, when I was a young man and was married, the Paiute heard that it was all right in their country; that the Mormons were no longer angry; so they went back. All went back at one time: they have never come back since.

THE NAVAHO AMONG THE HAVASUPAI

A few years after the Paiute visit I saw the Navaho for the first time. I was then about sixteen years old. I heard the Havasupai say that a great many Navaho were coming this way. They did not know just where they were coming from. I heard that these Navaho were encamped on both sides of the Little Colorado River (*hapáθel'la*). It was about this time of year [October]; the piñon nuts were falling to the ground. They grow plentifully at Moho Canyon[1] (*hwatlìwikyàwa*, pine precipice): all the Havasupai went over there. Some Walapai were there with them.

Some of the men there said they wanted to go to Oraibi. They would take piñon nuts and buckskins with them. So they went by a direct route, crossing Cataract Canyon at *gitcbud* (near its head), where they

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[1] Only an approximate location is given on the map, Fig. 1.

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camped. Next morning they went straight on, passing a little south of the present Anita, camping again a little beyond Red Butte. The next morning they went on. When they were halfway to the Little Colorado, they came on the fresh tracks of many men, so they stopped there while two or three scouted ahead to see what kind of men these strangers might be. They followed the tracks along the plateau above the Coconino Basin, where they found several camps of Navaho. The Navaho gave these scouts something to eat; then they returned to where the others were waiting. They said that they had found Navaho. The others said, "That is good; we will kill them all. Are there many?" Those who had seen them said, "Yes, there are not many. We are many more than they."

Early in the morning they packed their horses and went forward until they got to where the Navaho were encamped. Those Navaho had told others and they had collected at that camp; they wanted to do just as the Havasupai had done, to go to kill the enemy. The Navaho said, "Our big chief[1] is right below here, down in the Basin. You just go down there to our big chief's house." The Havasupai said, "That is all right" and they went down to his house and camped there. Then these Navaho sent word to all the Navaho for a long way around, and these came in great numbers to see the strangers.

This was the first time that the Havasupai had seen the Navaho. They did not know how to talk their language. When they first met, each people spoke their own language and used signs for eating and trading. At first one of the Navaho talked to them in his own language, but they did not understand. Then he talked in Hopi, and the old men understood that, so they used this language to converse in. The Navaho said, "Many of us are living in this country; some along the rim of the Grand Canyon, others far over to the San Francisco Mountains, and some far up the Little Colorado. There are only a few living here. Many white men came to our country far to the east of Oraibi; we do not know whence they came. They came little by little. After a few came we Navaho thought that that was enough: that no more were coming. The Navaho stole mules and horses from the white men, and killed some of them. We had done this many times, but more white men kept coming until there were a great many living back in our country. There the white men gathered together about half the Navaho—we are only half the tribe over here—and drove them to the east and south.[2] Those

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[1] Navaho chieftaincy is here envisaged in Havasupai terms.

[2] In 1863 Col. Kit Carson invaded the Navaho country, killed many sheep, and took the greater part of the tribe (some 8000) as prisoners to Ft. Sumner at the Bosque Redondo on the Pecos in New Mexico. They were released in 1867. (*Handbook of American Indians*, II, 41).

539 white men are friends of the Ute, the Zuñi and all the Hopi pueblos. They wanted those people to fight too and drive us out, or kill us. All those people fight with us. We are afraid and so we came westward. That is why we are camping here where you see us."

The head chief of the Navaho said, "All you Navaho men listen to me. I think some of our men would like to kill these Havasupai. I think this is wrong. If you do not listen to what I say but kill all of them, other Havasupai living over there in their own country will come to kill us. That was what you did in our country and a lot of men came to kill us, so that we were afraid, and had to leave. Now we must be friends with these people. This is what I think; leave them alone and we will have a pretty good country. The country about here is pretty good. I want you to listen to what I say and be good to the Havasupai. If you do not heed and kill even two or three of them, things will be different." Then the Havasupai, who saw these Navaho, came back to Moho Canyon and told what they had seen. Then I came back home here in the canyon, and the Navaho came down here, and I saw them too.

Before those Havasupai came back, the Navaho big chief said, "Be good friends with them" and the Havasupai big chief, Panamida's father said the same thing, but the Navaho persisted, "We want to fight them." The Navaho big chief went around among them saying, "No, do not fight: that is wrong." The Havasupai stayed over night and in the morning the Navaho big chief said to them, "I will go back with you," and that morning they came back. They got as far as Grand View, where another Navaho big chief had his camp. The Navaho said, "You are our chiefs; do not hold us back. We want to kill these people." Those Navaho like to talk of going to fight all the time. One of them said, "These Havasupai are not good men. A long time ago some of them came to a place a little east of the present Tuba, where I had some horses. They killed all of my family, my wife and children and some other women. I was not home then. They killed them and stole all my horses. That is why I want to fight." The Navaho chief said, "Do not talk about old things like that to fight about. You say you have no wife: you can have my young daughter for a wife; but do not kill these Havasupai: let them go. Be good friends," and he gave him his daughter. Then that Navaho man said, "All right; that will settle it."

The Havasupai stayed another night at Grand View and the next morning the Navaho head chief gave them something, saying, "I am glad to see you people. We will be good friends to you and you must be friendly to us; then all will be well. Back in my country those people are not friendly. They would like to kill all of us. They hunted me, and are still coming. All right. You Havasupai go back home and tell the others. We Navaho will camp near here. You tell the others that. After a time we will move slowly toward your village. When we arrive down there some time you can see us again." The Havasupai said, "All right; that is a good way. You come down to see our village." Then they came back the way they had gone and reached Moho Canyon. When they got home they said, "We have not been to Oraibi; we met the Navaho. After we saw them, we turned back. The Navaho chief said that they would move westward slowly and soon would all come down to our village."

After a short time we came home [to Cataract Canyon] from Moho Canyon bringing lots of piñon nuts. A little while after this, a few Havasupai were camping above the Moki trail. We heard that the Navaho, who were living a long way off, had ridden this way and found these Havasupai up there. The Navaho visited these people repeatedly. When we heard of this, the Havasupai down here wanted to go up on to the plateau to wait for the Navaho. They wanted to see them. So a number went up there and I went with them. We all camped together. After a few sleeps the Navaho men began to drift in, but none of their women. The Navaho said that they brought blankets to trade for food. We gave corn for blankets, about one tray full of shelled corn for a saddle blanket; if the blanket was big, we gave the shelled corn to the amount of a good-sized small burden basket (*gitθökä'ī'djī*) full. Two bundles of dried squash, about two feet long, were traded for a big blanket. Beans were valued high; only one small tray basket full, just level, was given for a good-sized blanket. The biggest burden basket full of shelled corn was traded for a horse. When we traded buckskin, the skins of two big bucks with a little corn in a sack to boot, were given for a horse. These Navaho came from the country around Grand Canyon and Red Butte to trade for corn.

When it was spring, after all the snow had melted, and there was no drinking water up there, all the Havasupai and Navaho moved. Some came down by Lee Canyon; others came by the Moki trail (*ditkad'giaviungand*, enemy scalp place). They camped up there in Cataract Canyon where the little springs are. Some of them came farther down and camped near the village at t[illegible]ead of the creek. It was about planting time. Most of them stayed up at the little springs and gathered mescal to bake. When the corn and beans were ripe, they wanted to trade. Those men in the east had stolen most of the Navaho

539 horses so they did not bring many here. Some had two or three, others five or six. The Navaho up the canyon and those down at the creek thought what they might trade for corn and beans. So they killed some horses, dried the meat, and brought that down to trade. Some had a few sheep with them and they butchered these too. The Havasupai had many horses then; they ate their meat too. This is the way the Navaho traded, with horses, sheep, blankets, bracelets, necklaces, bridles, and all such things, until they had nothing more to trade with. So when some Navaho woman saw some Havasupai man alone, she proposed to lie with him, in exchange for corn and other things; the man gave just enough for one meal, not very much.

At that time I was about seventeen years old and I did not understand such things. An older man and I went up near the Walapai trail, where his corn was ripening. The Navaho were stealing corn all the time. We stayed there to watch it. After a little while, we saw a Navaho woman come into the cornfield. She wore bracelets; she wanted to trade them for corn, but he said, "No, I do not want them." She sat down and talked to him for a long time; he thought he would give her corn if he had his will of her. So he told me, "You go home a little while and then come back again," so I went away but after a time I went back. He was there alone; the woman was gone. I asked him, and he said, "Yes, we did pretty well," and he showed me the spot.[1] He had broken off a lot of ears and given them to her. He had a horse tied close to the cornfield, so he broke off the cornstalks, and I gave them to the horse, two or three armfuls.

Soon when the corn was ripe they gathered it. Those who had big fields got the Navaho men and women to gather it for them, and gave a little of it in payment. We were very friendly with the Navaho. They stayed here in the village. The Havasupai got the Navaho men to work for them. They did these things very well.

After a time one of the Navaho men found four or five big buckskins hanging on a pole stuck in a crevice. Those buckskins belonged to Jess's father's father. George's father had a bridle and other things hanging with the buckskins. A Navaho man stole them and climbing up on the upper canyon level, got away. Jess' grandfather did not know when the man went, whether he had been gone a day or only that morning. Jess's grandfather followed his tracks and then came back. Then he and George's father set out up the canyon, up Lee Canyon, and followed his

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[522] [1] Humor takes this turn among them at least as freely as it would among ourselves.

tracks up tovök,óvá canyon. They continued after him where the old 539 road follows the rim; his tracks seemed to be one day old. They went a little further, but a summer rain had washed out his tracks. So they followed the trail and after a little way, they heard someone coming toward them. They met a Navaho mounted on a mule. They stopped and talked a little while. First the Navaho said, "Back in my country some white man gathered us up and took us back east. .When we got to the place where they kept me, they said to us, 'Are you going to kill or steal any more?' and we said, 'We are all right now'. We are all home again now and all our other people are down in your village. That is why I am going to see them; some are my relatives." Then the two Havasupai asked him, "Did you meet any Navaho man back on your road?" and he said, "No." The Havasupai said, "All right; you come home with us. That is good." So they brought the man with them. He had a lot of things packed on his mule.

The two Havasupai were very angry. When they got to the head of tovök,óvá canyon, the sun set. They came down the trail a little way; then the two Havasupai said that they would like to sleep right there. So they built a fire and ate there. The Navaho could not understand their language; with him they used gestures. These two wanted to kill him while he slept. "A Navaho stole our buckskins and other things, so we want to kill him," they said. They watched him, but he did not sleep because he suspected. It was nearly daylight before he began to snore. One of the Havasupai had a little pistol. He held it to the Navaho's head, but it only snapped; again he tried without success. The Navaho heard the slight noise. A third time the Havasupai fired it, shooting him in the forehead, and killing him. They took off all his clothes, took his pack, and divided the spoil. There was a pistol, nearly new; Jess's grandfather took that. They said, "What are we going to do with that mule?" "I think it is better to kill it. We will lead it to our house in the village. I will shoot it from one side, and you from the other, and kill it quickly." So they brought it down to Jess's grandfather's house. They killed it with arrows there. Everybody came and skinned it. Every man cut off a little meat and took it away; the Navaho did so too. Then other Havasupai asked those two, "Where did you get that mule? What did you do to the man who stole the buckskin and fled?" They said, "That man got away; we did not catch him. We met another Navaho riding that mule and brought him with us. We camped just below the rim on the trail; we killed the man there. He had some blankets and other things; we took those and hid them up in the canyon. All we brought

539 was the mule, so you people could have some meat." That day the Navaho recognized the mule, and those living here in the village became frightened and fled. Next day they traveled fast; all went back toward the east.

THE WALAPAI AND HAVASUPAI RAID THE YAVAPAI

I never saw the Yavapai and Walapai fight, but heard of it when I was a little boy.

Some Walapai were camping at Pine Spring where the Paiute had danced. Some of the enemy came to fight and killed many of them. A Walapai came down here to Cataract Canyon and told the Havasupai that he wanted some to go to war. Some agreed. Then they told the Walapai to return to his camp and tell the Walapai to come down. When they all came, they asked for some corn, beans, and other things for provisions, for they had nothing to eat. The Havasupai said, "All right." Then the Havasupai chief talked: "We do not want to go to war, but if you need men very badly, then you can take some of them with you." There were lots of Walapai. The Havasupai said they did not want to go to war; they did not know how to fight. So the Walapai all returned home.

The Walapai chief said that all his people were going to war. But I did not see him; I just heard of it.

When the Walapai were ready to go, three Havasupai went with them: Rock Jones' father, Kaθoda's father, and Teskimalauwa's mother's brother. They were going to the Black Hills [near Jerome] where quite a number of the Yavapai lived. They found them in the night. Then the Walapai chief said they would send half their number to encircle the enemy camp. Early in the morning some of the Walapai rushed on the enemy. One Yavapai was just starting out to hunt antelope; he saw the Walapai about to start. He shouted and ran back to tell the others. Then the Walapai halloaed and ran after them to fight. The Yavapai scattered. There were a great many Yavapai; they had all gathered at this place. They said the Walapai were but few, so they had intended going to kill them. When the sun came up, the Walapai, who had surrounded the camp, went in to fight. They fought and chased the enemy. The Walapai, running behind, caught the Yavapai by the hair and beat them down with clubs. They ran along, killing many of the enemy. When they killed several of them, they returned to their camp and then set out for home. One Walapai, a chief, had been killed.

After the Walapai had returned, the Yavapai said, "We are going to war again." They went over to Walapai Mountain, where many Walapai were camped. They fought, killing many of the Walapai, just as the 539 Walapai had done. This was perhaps a month after the first foray. When the Yavapai returned home they said that one Walapai chief, a big man, was the one who had killed so many. The Yavapai chief said they ought to go to war again in order to kill that man. So they went to raid at the same place on the eastern side of Walapai Mountain where some Walapai were camped. They saw there the big man whom they wanted to kill. He picked up a baby and ran. Some Yavapai ran after them and shot him in the thigh. When he was hit he threw the baby away. The Yavapai chased and shot him again. They shot him several times before they killed him. That Walapai big chief, Watchuúlamà, had killed so many of the enemy at their camp; that is why they wanted to kill him.

After they killed him they returned to the Walapai camp. The Yavapai chief took a Walapai horse, and rode off a short distance where some Walapai were grouped. He stood there and spoke to them: "This is the man I wanted to kill." Then a Walapai, who rode a race horse, circled around into the little canyon where the enemy were, and chased them as they ran, and shot at them with arrows. He hit the Yavapai chief right in the side, killing him. Then the enemy all went home.

Then a Walapai chief said, "We do not want to fight any more. So many of our people get killed, that it is not good." So the Yavapai agreed, and they and the Walapai never fought again.

THE UTE RESIDENCE AMONG THE WALAPAI

When I was a boy, after the crops were gathered, the Havasupai went up on the plateau for the winter, because there was not enough firewood down here. They stayed there to hunt in the snow. I remember that when I was about seventeen years old we camped on the plateau near the Moki trail. There were plenty of deer there, of which the others killed a great many, but I did not get any. There were a good many men in this camp. Four Ute[1] men came there; they said they came from tányáká [the canyon leading north to Pierce Ferry on the Colorado River in the western part of the Walapai reservation]. They said there were many more Ute staying there with the Walapai. One Walapai man who knew the road led them to our camp. Each of them had a gun which he traded to the Havasupai for blankets. They stayed for three sleeps.

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[1] These are clearly Ute, not Paiute although they came via Paiute territory.

One of the Ute, their big chief, traded his gun with Jose's mother's father; another gave a gun to Captain Navaho; another to [his older brother], Manakadja's father; and the fourth gave his to a young man. They received one big blanket for each gun. They also gave ten charges of black powder—not much in each—ten bullets, and ten percussion caps; for all this they got one skin of a fair-sized buck from the Havasupai. Ten silver shoe buttons made by the Navaho, were also given for the same amount of ammunition. After three sleeps, they started back when the sun was nearly down. They went down the Moki trail and got into Cataract Canyon when it was dark. They went on up a trail leading out on the west side, and then north along the rim of the plateau until they reached Wasikwiyámă's camp on the Walapai trail. They hunted around there for his horses—he had many of them—and stole them all. When they had driven them halfway to Pine Spring, they killed one right on the road. They camped on the other side of Pine Spring. Next morning they went by the same road they had come on and finally got to the Ute camps.

There the Ute said they wanted some food: their provisions were gone. The Ute said that they wanted all the Walapai to come to their camps. They wanted the latter to make provisions for them to carry home. The Walapai brought some for them. The Ute said, "We want all of the Walapai; tell more to come. Tell them to bring some buckskins with them; we have lots of horses to trade." The Walapai said, "All right," and then they all came bringing buckskins. Then the Ute big chief said, "Our people should get ready, saddle their horses, and pack them. Then we will kill all the Walapai." One Paiute man who was with the Ute heard this and told the Walapai. But the Walapai said, "We are good friends of the Ute; we do not think they want to kill us."

One of the Walapai had a pistol. A Ute said to him, "Let me see your pistol. Let me see if I can hit something. If it is pretty good, I will give you a horse for it." He gave it to the Ute, who shot at a mark. Then he re-loaded and asked the Walapai for a bullet, which was given him. The Ute first put it in his mouth and put it in the pistol with a patch. Then he put on a percussion cap and gave it back to the Walapai. Then the Ute big chief shot a Walapai man and the other Ute began shooting, too. The Walapai ran away, the Ute chased them; they had good horses. They killed a great many Walapai. Then they turned back home toward the north. The Walapai spread the news everywhere: some men came with it to Pine Spring and then further east to the Havasupai. Then we who were up the Moki trail heard of it.

This was in the spring. There was still a little snow on the plateau when we moved down into the village. They were playing shinney down here then for buckskins and other things, blankets, powder, and percussion caps. Half the Havasupai went up the trail above Austin's house [no. 41, see map, Fig. 80] to the upper canyon level; the other half went up the west side of the canyon with Wasákwivámá, a big chief, to wigiaèlà [the springs west of the canyon]. I went with the first group out the east side to wigáflálá [pointed rock, the peak at the corner formed by Cataract and Grand Canyons] to gather mescal on the red sandstone bench in the Grand Canyon. We camped at ahágiamáhána'tà spring [cottonwood knob; these were little trees with rounded tops] north of the peak. We roasted mescal, pounded it, and spread it out to dry in sheets. Wasákwivámá was camped in the angle between the next canyon west and the Colorado River. One of our men went down to the point between the Colorado River and Cataract Creek (havasú), making a signal fire at short intervals, so that Wasákwivámá might see it. Wasákwivámá came down to the point in his angle. The two canyons (Cataract and the next one) which came together here are very narrow, so that they could talk across. Our man said, "We are going down to our houses in the bottom of the canyon. We are going to live there again." Some said they would go down above Navaho Falls and live up on the cliff to the west of it. Supai Jack's father, my father, and Jess's mother's father said, "We think we had better camp right up here on the ledge [above camp no. 42]. We know the weather is not good." It was cloudy and rainy, and the wind blew hard. They heard the screech owls and the big owls hoot, *gitavíkyáq* huŋ huŋ huŋ (something comes from the south), and they were afraid, for owls mean something very bad; perhaps an enemy is coming when the owl hoots.[1] We camped up on the ledge. We were there three sleeps, when early in the morning the Yavapai came down that trail. Jess's mother's father saw them first, and woke the other two camps: *tícihuáklij sumánigiu* (enemy are going by), he whispered.

THE THIRD YAVAPAI RAID[2]

The enemy came from the south straight across the plateau, from the Moki trail to the rim of Grand Canyon at Apache [?] point from which a canyon leads back to Lee Canyon. They got to the rim and looked down on the red bench [the upper canyon level], but could not see any smoke. So they followed the rim westward to the corner of Cataract

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[1] The call of a scout.
[2] This was about 1860–63.

539 Canyon, wigisiyává. There were about two hundred of the enemy. They saw no campfires, so they followed the rim southward along Cataract Canyon. There were a lot of horses in a little canyon, øata'mivo, near the point. Some of the Yavapai scouted ahead for the Havasupai; when they saw no one, they told the main body which moved forward. Then they descended by the foot trail into this little canyon. So they got all those horses. Then they came up along our canyon on the red bench. They found a lot more horses near the white peak north of here [near the corner of Grand and Cataract Canyons]. These they captured too. There were fresh tracks of some Havasupai, who had camps near that peak, leading this way. The Yavapai followed these. When they reached the south side of the white peak they sent scouts to look down into Cataract Canyon. These returned and told the others, "Yes, there are a lot of men staying in the canyon who are clearing the ground and burning the brush. It is pretty fine for us." The Yavapai came to the head of the canyon leading down back of Captain Jim's house [no. 20, see map, Fig. 30], where there were a lot of horses which they captured. It was late then, the sun was setting. They said, "You women (there were six of them) should drive the horses after us. We will go ahead." So they came.

They started before daylight. They did not know the trail. It was so dark that they got lost in a difficult place. It was dawn when they came down the trail above Austin's house [no. 41]. Captain Navajo and Oladwá's husband (Captain Gave) were living in the caves above Billy's house near this trail. I and my father[1] were living up on the red cliffside just above these caves. Jess's mother's father had a camp near ours. Supai Jack's father had a camp there too, but this was nearer the trail. He heard them make a little noise as they came down the trail and saw them first.[2] He ran over and whispered to my father. We were still sleeping; my father woke me. My father and Supai Jack's father did not stop to put their clothes on. They slung on their pouches containing bullets, powder, and percussion caps; grabbed their guns, and we ran off. I went with the women; we ran to the north, climbing the cliff.

Twenty Yavapai were already down in the village just a little below Austin's house, when these two men loaded their guns, ran to the point above the house, and shot down at those who were running along the road below. The Yavapai had not yet found anyone. Other Havasupai, living down the canyon where Smiley's house [no. 50] now is, heard the shooting and ran down the canyon away from the firing. About ten 539 Yavapai went down the canyon following them. There were a great many more Havasupai down where the canyon wall turns above the falls. These men got ready and came up the canyon to meet the enemy. When they met them they drove them back, shooting all the way, until they forced them back to the point from which they had started. Then I slung stones at them.[1]

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[1] This is the invariable sequence of personal pronouns, at least in speaking English.

[2] This differs from the preceding tale (p. 371).

Captain Navajo and Captain Gave had their wives with them in the caves. They saw the Yavapai while they were still descending the trail right past the entrances of the caves. It was pretty hard for these two to get away from that place, so they kept quiet and stayed there. Captain Navajo had two guns. He gave one to Captain Gave. They loaded these and waited. After they saw no more Yavapai passing, Captain Gave thought that there were no more. So he ran out and up that trail. When he had got part way up, he met the remainder of the Yavapai driving the horses down it. They shot at him and hit him in the thigh. He found a good place to climb the cliff and ran to join us up on the upper canyon level.

Captain Navajo stayed in the cave until the Yavapai saw him. They climbed right up toward it. Captain Navajo's cave was at one end of a ledge; so, followed by his wife carrying her baby, and an old man, his mother's brother, he ran along this until he came to a break about six feet long, which he had to jump. He ran on to a similar gap, which he also jumped, followed by the others, until they came to some big rocks at the point above Billy's house [no. 42], behind which they stopped. From there they shot at the Yavapai and the three others right above them (Sinyella's father, Supai Jack's father, and Jess's grandfather) shot down too.

Many more Havasupai came up the canyon and chased the Yavapai across to the point with the two pinnacles on the west side of the canyon. There were some Yavapai still below, who called to the Havasupai, "We have not eaten yet. We are going to fight you all this day until tomorrow." So those Yavapai over on the point built fires, killed a horse, and broiled its flesh on the coals. After they ate, about half of them crossed back again. They skirmished along the creek, where Richard's and Bert's houses now are in the middle of the canyon [nos. 32 and 33], while the Havasupai were gathered up on the point of the cliff at the foot of the trail by which the Yavapai had descended. The Yavapai did not come near when they shot at the Havasupai, so their arrows did not carry.

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[1] The sling is not seriously a weapon (see p. 249).

The Havasupai had plenty of guns and could shoot down. Some of them said to Captain Burro, "You said you could hit something at that distance; try this, let us see if you can hit one."[1] Captain Burro said, "All right, I will try and see if I can hit one," so he came a little way to the edge of the point, and sat there. He shot one Yavapai, who fell right over, for his thigh bone was broken.[2] Then all the Havasupai hollered and rushed down the hill. Some of the Yavapai wanted to rescue the wounded man, but the Havasupai kept firing, so that they had to leave him and retreat across the creek with the rest. The Havasupai dragged the man back to the base of their point, chopped off his head, and carried it up with them. This Yavapai had vertical lines, alternately black and red, painted on his face. After a while, the enemy came across again and shot arrows up.

After a little while Captain Navajo went down the hill under the cover of the bushes, and went close to the enemy. He shot one of them under his left arm, killing him. Captain Navajo dragged him away, took off the Yavapai's clothing, and cut his head off, too.

The Havasupai said, "We want ten or more of our men to go down off the point and up along the middle of the canyon, and go up on top of the red cliffs by the trail on the east side [above camp no. 16]." So ten or twelve of them started off. When they were in the middle of the canyon among the mesquite bushes, they saw the Yavapai, who had crossed the creek a little higher up, coming toward them. The Havasupai were afraid and were chased back to the point. Some of the young Yavapai were good runners and nearly caught them. The Havasupai jumped across a little arm of the creek and ran up under the point where they had the protection of those shooting from above. These then drove the enemy off.

Prince's father went down, and crossing the creek under cover, went up the side canyon to the west. He climbed up on top of the red cliff back of the Yavapai and came around on the point above them. They did not know he was there. He pushed big rocks off the cliff on to them. They made a thundering noise which frightened the Yavapai so that they left that place and started up the canyon. I was on the cliff and saw them fighting. I could see a lot of horses and men going up the road and kicking up so much dust it looked like a fog. The Havasupai came down off the point and followed them through the village. The Havasupai said, "This is pretty good. They came down here, and now we are glad, because we can follow them and kill more of them." The Yavapai fled as fast as they could, so that the Havasupai could not catch up with them until they were a little above the entrance to Lee Canyon. The enemy stood there to fight a little while. Right there are good places to climb up on the red cliffs. Many of the enemy climbed up on both sides and came back down the canyon on this level, while the rest waited in the canyon bed. They wanted to trap and surround the Havasupai. But these knew of their stratagem, and as the enemy came along the cliffs, the Havasupai retreated. So they came back home.

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[1] He is still treated somewhat as a butt for their jokes.
[2] The distance is about five or six hundred feet.

After they returned, they cut off the scalps of both men, and tied them on a pole. They cleared the ground and planted the pole upright. Then they danced around this. That is what I saw; that is the way they did in the old days. They kept the two scalps, so they could have a dance whenever they wanted.

Two years after this a Yavapai came down and said, "We will all be friends with one another. It is not right for us to kill each other; our language is nearly the same. It is not right; we ought to stop and be friends." All the Havasupai said, "All right." So he went back and told his people. So a lot of them came down here with buckskins to trade and as presents. The Havasupai gave them lots to eat, and they were glad. So sometimes they brought women down here and there was no more fighting.

PEACE AT ORAIBI

Shortly after this raid we went down to the lower part of the village, on the west side of the canyon above Navajo Falls. There we lived in the bottom of the canyon under a shade, a box-like house. There we planted corn, beans, squash, sunflower, and everything. When the corn came up, I scraped [hoed] out the weeds. We stayed there all summer. All the crops were getting ripe when we moved down to the ledges on the west canyon wall above Navajo Falls. Everybody went there to live on the cliffs. Nobody went away. We all stayed together. We were afraid the enemy would soon return. We gathered all the ripe corn and beans and other crops, and piled them on the canyon floor just below our camps. When they were fully dried, we stored them all in the stone storage houses along the cliffs.

It was then early fall and the Havasupai began to scatter. A good many started to go to gather piñon nuts where someone had said he had seen plenty lying on the ground. They went up Lee Canyon and out by tovŏk,óvà (precipice) trail, and along the road on the plateau for about seven or eight miles to ķwáganoṇagiskö't (deer trails between the hills). They camped there and gathered the nuts. After some time when they had a great quantity, they said, "We want to go to Oraibi, to take the piñon nuts over to trade." All the men went, leaving their women. They camped at Rain Tank [east of Grand Canyon Station]; next night they camped on top of the mesa, huwalᵃgitidà (rock water hole) to the west of the Little Colorado River. Next morning they crossed the river and made their next camp up on the plateau on the east side. The next day they arrived at Oraibi. They stayed there but one sleep, when in the morning they saw a signal fire to the south. The Hopi chief sent two of his men down from the mesa to see. These two met a great many men coming, Yavapai and Apache. They sent the two Hopi men back to tell that they were coming. The Hopi ran back as hard as they could and told the others: "The Yavapai and Apache are coming together. We met a great many men." The big chief[1] of Oraibi said, "You Havasupai must not be seen here. I do not want those two peoples to see you. I will think how I will dispose of you and what I will do about this crisis. All you Havasupai hide down in a lower room in a good place. We will let the Yavapai and Apache come into our houses; then we will trade with them and buy their bows and arrows. When we have bought all these, then you can come out and show yourselves. Then if the Yavapai and Apache want to kill you, we Hopi and you together will kill them."[2]

I was not with them; I stayed at home with the women to pick up nuts. My father, Wasákwivámä, Captain Nṇvaho, and Jess's mother's father and a lot of lesser men were there in Oraibi. Wasákwivámä, the big chief, said to the Hopi, "I do not want to hide. We will stay out here; let the Yavapai and Apache come in and see us. Let us see what they will say. If they say they want to kill us, I think we will fight. I think that is best." The Hopi said, "All right. You people talk with the same words [*i.e.*, speak similar dialects]: talk to the Yavapai." So Wasákwi'vámä said, "I will talk about being friends. I will tell their chief to keep his people from always killing so many of ours. If he says 'No,' then we will fight."

The Yavapai came to the base of the mesa and camped there. All the Hopi went down to meet them, and shook hands all around. Then the Havasupai showed themselves to the enemy and went down to shake hands in the same way. When the greeting was finished, one of the Yavapai, who knew Wasákwivámā, said, "All right, we just met you here; we will talk about being friends." Wasákwivámā said, "That is what I think; I want to talk friendly too." The big chief of Oraibi said, "I want you Yavapai and Apache to stay right here by this spring. Then my people will bring their blankets and other things down here to trade. They will also bring things to eat." The Yavapai big chief said, "I do not want to do that. If I come to be your friend, to visit for a few days, we ought to go right into your houses. When a man travels around to visit, nobody leaves him outside this way. We want to go inside your houses and sleep there. Your people should treat mine right." The Havasupai all said the same. "That is the best way. If all go in there, it will be all right," they said to the Hopi chief. So he said, "All right." They all went up into the town and scattered, two or three men went into each house.

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[1] The narrator is projecting Havasupai organization in Oraibi.

[2] Oraibi figures throughout these tales as a sort of neutralized trading post. Its people are uniformly represented as friendly to the Havasupai rather than the enemy. Yet it seems reasonable to suppose that they made the same show of friendship to the others. Incidentally, the only Hopi town that the Havasupai had contact with is Oraibi, the westernmost.

In the evening the Havasupai said, "We do not know which Hopi has the biggest house, so that all the chiefs can gather there and talk all night." One Hopi, we called Hopi shaman[1] (*mokʷgiθiʔ',*) was chief. "His house is all right; we will all go in there and talk," they said. When they were all in that house that night, they said to the Yavapai big chief. "You go ahead first and say what you think." So he spoke first: "My people have gone out to kill various tribes. We do that all the time, but it is wrong. We used to fight Mohave, Walapai, Havasupai, Navaho, and your people, the Hopi. We will not do that any more. This is the truth I tell; I do not lie. That is why I came over here." Wasákwivámā spoke next: "All right, that is a good way to talk. All of us—one tribe and another—living about here are pretty bad; when any man is traveling around, who we see on the road, we kill him. All the tribes do the same thing. It is not right. If a man wants to go to some place to visit another tribe, to stay there or trade, that is a good thing. We have been pretty bad to each other in the past; now we should not be so any more. I want it stopped."[2]

Then the Apache chief talked in his own language, but the others did not understand him. The Havasupai asked the Yavapai, "Do the Apache understand how to talk your language?" and the latter replied, "Yes, they talk it." The Yavapai said to the Apache, "You can talk our language to the Havasupai; they will understand what you say." Then the Apache chief repeated what the Havasupai and Yavapai chiefs had said.

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[1] Here rather is a recognition that the chiefs are thought of as priests by the Hopi, or it may be this was one of the ceremonial leaders.

[2] These colloquies bear out the Havasupai view that the primary function of a chief is spokesman for his people.

539 The Oraibi chief spoke last. He said to the Yavapai chief, "I know you; I do not believe you. You come here and when you talk to us you always talk crooked. I think that perhaps when you go back, when you are in your home again, you will think more and finally decide to go out to fight. I think that you came to fight with us, because you came with so many men, but you see the Havasupai and ourselves here, and you think we are too many for you, so you talk of being friends. The Navaho are just like you. They come here and say 'all right,' then they go and do wrong. They do not talk honestly. We stay here; we do not travel far. We walk down into that valley to plant our corn, and we are afraid for the enemy: 'Perhaps an enemy will come and kill me while I am working in the valley,' I think. So while I am working I look all around. I do not work very long: I come right back; then I sally down again. That is what I have to do all the time. I would like all the different tribes to be good, to travel around and visit, to go alone and sleep by the road. That would be fine. What you say sounds good, for then I can work well. I will not have to watch out for the enemy any more. I can plant and hoe and tear out the weeds in safety. I want you, the big chief of the Yavapai, to repeat what you said so that I can hear you. Then it will be good. Say again, 'You are sure you will not fight any more.' Say it once more, and that will be all," he said.[1] The Yavapai chief said, "I talk just one way. Certainly we are not going to be enemies any more." Then the Hopi, Havasupai, Apache, and Yavapai men all said, "That is a pretty good way we have settled it now. All we have to say is finished."

Wasákwivámă said, "The Paiute have been enemies for a long time: they came and fought us. The Paiute chief came over and said he was not going to fight us any more. He said they would be good friends to the Havasupai. It is all right over there now, too. The Navaho are just the same; we met them and they came down to stay with us. We talked it over and they said they would be our good friends, too. Only you Yavapai had not said you would be good. Now we meet you here and you say so, so all will be well now." Everybody clapped their hands and cried out, "It is finished all right now." Wasákwivámă said, "It is all right now." Then he took a big blanket from beside him and threw it down before the Yavapai chief as a present. Captain Navajo did the same, and so did the Oraibi chief. The Yavapai chief gave a buckskin to the Hopi chief. Then they said, "It is all right now. Look around for anything you want, and trade. Perhaps the Hopi men and women will prepare provisions and tomorrow you can go back. We will all go the same day: you Apache and Yavapai go your way, and we Havasupai will go back home too."[9]

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[1] This is very characteristic of Havasupai transactions as well.

The Havasupai came back from Oraibi to where I stayed with the women gathering piñon nuts. After a while, when a little snow had fallen, we saw signal fires over at gitcḳwá [the head of Cataract Canyon]. We saw a big smoke, then another nearer, and more, always nearer. A Havasupai man went in that direction to see. He met the Yavapai coming. They said, "We are coming down to your people's village to visit. We are going to be friends. That is what I said at Oraibi. I want you to go right back and tell your people, so they will know I am coming." That man came back and told that the Yavapai were coming. The Yavapai came to a group of Havasupai camped near the Moki trail. Then one of these went around to tell all the Havasupai to gather to see them. So we moved down there, too. I saw them there with my own eyes. Then we made one big house for all the chiefs to gather in. The other Havasupai kept coming. Each family made a little circular wall of green piñon branches to camp in temporarily.

Then they talked. First the Yavapai chief spoke: "We talked already at Oraibi: we met you there. I will talk again the same way. We would like to trade. We have some buckskins here which we will give you. We will not trade these; we are friends." Then the Havasupai chief spoke the same way: "We are relatives now. That is a good way. That is all. We will play now." The women prepared a dance ground and stood beside the Yavapai youths. We had a good time. The Yavapai stayed for a long while before they went back. The Havasupai stayed there until spring; then they all went down directly to the village. The Havasupai big chief said, "We have talked it over with them, and are now good friends. So you can make big fields and make good houses to live in. We do not have to climb on the ledges to live any more. All is well now: go do this."

When the corn was four or five inches high some young Yavapai men came. They now began to travel back and forth between their country and ours. They traded buckskins for dried corn and blankets. Those who wanted to make friends gave presents; they did not trade.

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[9] I think there can be little doubt that the willingness of the Yavapai and Apache to make peace at this time (1868-9) is due less to any fundamental friendliness, than to the fact that the California-bound immigrants, who now were rolling westward through southern Arizona, were a more lucrative prey. Raids were now southward, instead of northward. The last raid on the Havasupai was in 1866-68. The Apache and associated groups were subdued in 1870-75. Yet, white occupation of central Arizona might not have prevented northward raids until as much as thirty years after this last one.

539 When the crops were ripe, they brought their families with them, and stayed down here and ate our bounty. Then I saw that all was well, and I felt better. I was not afraid any more. In those days when I heard the coyotes and owls call, I felt very much afraid.[1]

That is the way they talked to make the Yavapai stop killing people.

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[1] Ghosts imitate the calls of wolf, coyote, screech- and horned owls.

BIBLIOGRAPHY

The following abbreviations are used.

AA	American Anthropologist
BBAE	Bulletin of the Bureau of American Ethnology
BAMNH	Bulletin of the American Museum of Natural History
JAFL	Journal of American Folk-Lore
Mem AMNH	Memoirs of the American Museum of Natural History
Pa AMNH	Anthropological Papers of the American Museum of Natural History
Proc USNM	Proceedings of the United States National Museum
RBAE	Annual Report of the Bureau of American Ethnology
R Smithson	Annual Report of the Smithsonian Institution
RUSNM	Annual Report of the United States National Museum
Univ. Calif. Publ. Amer. Arch. Ethn.	University of California Publications in American Archaeology and Ethnology

Allen, George A. Manners and Customs of the Mohaves (R Smithson, 1890, 1891, 615-616).

Allen, Glover M. Dogs of the American Aborigines (Bulletin, Museum of Comparative Zoölogy of Harvard, 63, 1920, 429-517).

Annual Report of the Smithsonian Institution for 1886 (1889, pt. 1).

Anonymous. Burial Customs in Oregon (American Antiquarian, 4, 1881-1882, 330).

Anonymous. Ghost Dance in Arizona (JAFL, 5, 1892, 65-68).

Baegert, Jacob. An Account of the Aboriginal Inhabitants of the Californian Peninsula, etc. (R Smithson. 1863, 1864, 352-369; 1864, 1865, 378-399).

Balfour, Henry. The Natural History of the Musical Bow. Oxford, 1899.

Bandelier, A. F. (a) Final Report of Investigations among the Indians of the Southwestern United States, etc. Part I (Papers of the Archaeological Institute of America, American series, 3, 1890).

(b) An Outline of the Documentary History of the Zuñi Tribe (Journal of American Ethnology and Archaeology, 3, 1892, 1-115).

Barnum, Francis. Grammatical Fundamentals of the Innuit Language (Boston, 1901).

Barrett, S. A. (a) The Material Culture of the Klamath Lake and Modoc Indians of Northeastern California and Southern Oregon (Univ. Calif. Publ. Amer. Arch. Ethn., 5, 1910, 239-292).

(b) The Washo Indians (Bulletin, Milwaukee Public Museum, 2, 1917, no. 1).

(c) The Wintun Hesi Ceremony (Univ. Calif. Publ. Amer. Arch. Ethn., 14, 1919, no. 4).

Barrows, David Prescott. Ethnobotany of the Coahuilla Indians of Southern California. Chicago, 1900.

115 Bartlett, John Russell. Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua, etc. 2 vols., New York, 1856.

Beale, E. F. Wagon Road from Fort Defiance to the Colorado River (House Ex. Doc. 124, 35th Congress, 1st Session, 1858).

Benedict, Ruth Fulton. The Concept of the Guardian Spirit in North America (Memoirs, American Anthropological Association, 29, 1923).

Boas, Franz (a) Second General Report on the Indians of British Columbia (Report, British Association for the Advancement of Science, 1891, 562-715).
(b) Fifth Report on the Indians of British Columbia (Idem, 1895, 523-592).

Bolton, Herbert Eugene. The Hasinai Indians of the Neches-Angelina Valleys at the Coming of the Spaniards and the French (Ms., Bancroft Library, University of California).

Bourke, John G. (a) Notes on the Cosmogony and Theogony of the Mojave Indians of Rio Colorado, Arizona (JAFL, 2, 1889, 169-189).
(b) Vesper Hours of the Stone Age (AA, 3, 1890, 55-63).
(c) Notes Upon the Religion of the Apache Indians (Folk-Lore, 2, 1891, 419-455).
(d) On the Border with Crook. New York, 1892.
(e) The Medicine-Men of the Apache (RBAE, 9, 1892, 451-603).
(f) Popular Medicine, Customs, and Superstitions of the Rio Grande (JAFL, 7, 1894, 105-146).

Brown, Herbert. A Pima-Maricopa Ceremony (AA, n.s., 8, 1906, 688-690).

Chamberlain, A. F. (a) Report on the Kootenay Indians of South-Eastern British Columbia (Report, British Association for the Advancement of Science, 1892, 1893, 549-615).
(b) The Kootenay Indians (Annual Archæological Report, Ontario, 1905, 178-187).

Chamberlin, Ralph V. (a) Some Plant Names of the Ute Indians (AA, n.s., 11, 1909, 27-40).
(b) The Ethno-Botany of the Gosiute Indians of Utah (Memoirs, American Anthropological Association, 2, 1911, pt. 5).

Chittenden, N. H. Among the Cocopahs (Land of Sunshine, 14, 1901, 196-204).

Cope, Leona. Calendars of the Indians North of Mexico (Univ. Calif. Publ. Amer. Arch. Ethn., 16, 1919, 119-176).

Corbusier, Wm. F. The Apache-Yumas and Apache-Mojaves (American Antiquarian, 8, 1886, 276-284, 325-339).

Coues, Elliott. On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garcés, etc. 2 vols., New York, 1900.

Coville, Frederick Vernon. The Panamint Indians of California (AA, 5, 1892 351-361).

113

Cox, Ross. Adventures on the Columbia River. 2 vols., London, 1831.

Cremony, John C. Life Among the Apaches. San Francisco, 1877.

Culin, Stewart. (a) A Summer Trip Among the Western Indians (Bulletin, *Free Museum of Science and Art*, Department of Archæology, University of Pennsylvania, 3, 1901, 3-22, 89-122, 143-178).
(b) Games of the North American Indians (RBAE, 24, 1907, 3-809).

Curtis, Edward S. The North American Indian. 12 vols., Cambridge, 1907-1922.

Cushing, Frank Hamilton. (a) The Nation of the Willows (Atlantic Monthly, 50, 1882, 362-374, 541-559).
(b) A Study of Pueblo Pottery as Illustrative of Zuñi Culture Growth (RBAE, 4, 1887, 467-521).
(c) Zuñi Folk Tales. New York, 1901.
(d) Zuñi Breadstuff (Indian Notes and Monographs, 8, 1920).

Davis, Edward H. (a) The Diegueño Ceremony of the Death Images (Contributions from the Museum of the American Indian, 5, 1919, 7-33).
(b) The Papago Ceremony of Víkita (Indian Notes and Monographs, 3, 1920, no. 4).
(c) Early Cremation Ceremonies of the Luiseño and Diegueño Indians of Southern California (Idem, 7, 1921, no. 3).

Dellenbaugh, Frederick S. A Canyon Voyage. New York, 1908.

Densmore, Frances. Mandan and Hidatsa Music (BBAE, 80, 1923).

Dixon, Roland B. (a) The Northern Maidu (BAMNH, 17, 1905, pt. 3).
(b) The Shasta (Idem, 17, 1907, 381-498).
(c) Notes on the Achomawi and Atsugewi Indians of Northern California (AA, n.s., 10, 1908, 208-220).
(d) The Chimariko Indians and Language (Univ. Calif. Publ. Amer. Arch. Ethn., 5, 1910, 293-380).

Dodge, K. T. White Mountain Apache Baskets (AA, n.s., 2, 1900, 193-194).

Dorsey, George A. (a) The Shoshonean Game of Nā-wá-tā-pi (JAFL, 14, 1901, 24-28).
(b) Indians of the Southwest [no place], 1903.
(c) The Mythology of the Wichita (Carnegie Institution of Washington, Publ. 21, 1904).
(d) The Cheyenne. II. The Sun Dance (Publications, Field Museum of Natural History, Anthropological series, 9, 1905, no. 2).

Dorsey, J. Owen. Omaha Sociology (RBAE, 3, 1884, 205-370).

DuBois, Constance Goddard. (a) Religious Ceremonies and Myths of the Mission Indians (AA, n.s., 7, 1905, 620-629).
(b) Two Types or Styles of Diegueño Religious Dancing: The Old and the New in Southern California (Congrès International des Américanistes, 15th session, Quebec, 2, 1907, 135-138).

113

(c) The Religion of the Luiseño Indians of Southern California (Univ. Calif. Publ. Amer. Arch. Ethn., 8, 1908, 69–186).

Dumarest, Father Noël. Notes on Cochiti, New Mexico (Memoirs, American Anthropological Association, 6, 1919, 137–236).

Dutcher, B. H. Piñon Gathering Among the Panamint Indians (AA, 6, 1893, 377–380).

Eells, Myron. The Twana, Chemakum, and Klallam Indians, of Washington Territory (R Smithson, 1887, pt. 1, 1889, 605–681).

Farrand, Livingston. (a) The Chilcotin (Report, British Association for the Advancement of Science, 1898, 645–648).

(b) Notes on the Alsea Indians of Oregon (AA, 3, 1901, 239–247).

Faye, Paul-Louis. Notes on the Southern Maidu (Univ. Calif. Publ. Amer. Arch. Ethn., 20, 1923, 35–53).

Fewkes, J. Walter. (a) The Ceremonial Circuit Among the Village Indians of Northeastern Arizona (JAFL, 5, 1892, 33–42).

(b) A Contribution to Ethnobotany (AA, 9, 1896, 14–21).

(c) Archeological Expedition to Arizona in 1895 (RBAE, 17, 1898, 519–744).

(d) Fire Worship of the Hopi Indians (R Smithson, 1920, 1923, 589–610).

Fletcher, Alice C. and La Flesche, Francis. The Omaha Tribe (RBAE, 27, 1911, 17–654)).

Franchère, Gabriel. Narrative of a Voyage to the Northwest Coast of America in the Years 1811, 1812, 1813, and 1814. New York, 1854.

Franciscan Fathers. An Ethnologic Dictionary of the Navaho Language. Saint Michaels, Arizona, 1910.

Friederici, Georg. Skalpieren und ähnliche Kriegsgebräuche in Amerika. Braunschweig, 1906.

Gaillard, D. D. The Papago of Arizona and Sonora (AA, 7, 1894, 293–296).

Gatschet, Albert S. (a) Der Yuma-Sprachstamm nach den neuesten handschriftlichen Quellen (Zeitschrift für Ethnologie, 18, 1886, 97–122).

(b) The Klamath Indians of Southwestern Oregon (Contributions to North American Ethnology, 2, 1890, pt. 1).

(c) Der Yuma-Sprachstamm (Zeitschrift für Ethnologie, 24, 1892, 1–18).

(d) Songs of the Modoc Indians (AA, 7, 1894, 26–31).

Gibbs, George. Tribes of Western Washington and Northwestern Oregon (Contributions to North American Ethnology, 1, 1877, 157–241).

Gifford, Edward Winslow. (a) Clans and Moieties in Southern California (Univ. Calif. Publ. Amer. Arch. Ethn., 14, 1918, 155–219).

113

(b) Californian Kinship Terminologies (Idem, 18, 1922).

Goddard, Pliny Earle. (a) The Life and Culture of the Hupa (Univ. Calif. Publ. Amer. Arch. Ethn., 1, 1904, no. 1).
(b) Jicarilla Apache Texts (PaAMNH, 8, 1911).
(c) Indians of the Southwest (Handbook series, American Museum of Natural History, 2, 1913, 1st ed.; 1921, 2nd ed.).
(d) Notes on the Chilula Indians of Northwestern California (Univ. Calif. Publ. Amer. Arch. Ethn., 10, 1914, 265-288).
(e) San Carlos Apache Texts (PaAMNH, 24, 1919, pt. 3).
(f) San Carlos Apache Myths and Tales (Idem, 1918, pt. 1).

Grinnell, George Bird. (a) Coup and Scalp Among the Plains Indians (AA, n.s., 12, 1910, 296-310).
(b) The Cheyenne Indians. 2 vols., New Haven, 1923.

Guernsey, S. J. Notes on a Navajo War Dance (AA, n.s., 22, 1920, 304-307)

Gunther, Erna. Klallam Ethnography (University of Washington Publications in Anthropology, 1, no. 5, 1927).

Hackett, Charles Wilson. The Revolt of the Pueblo Indians of New Mexico in 1680 (Quarterly of Texas State Historical Association, 15, 1911, 93-147).

Haddon, Alfred C. A Few American String Figures and Tricks (AA, n.s., 5, 1903, 213-223).

Haeberlin, Hermann und Günther, Erna. Ethnographische Notizen über die Indianerstämme des Puget-Sundes (Zeitschrift für Ethnologie, 1924, 1-74).

Handbook of American Indians North of Mexico (BBAE, 30, 1907, 1910, 2 vols).

Harrington, John Peabody. (a) A Yuma Account of Origins (JAFL, 21, 1908, 324-348).
(b) The Tewa Indian Game of "Cañute" (AA, n.s., 14, 1912, 243-286).

Heintzelman, S. P. *In* Indian Affairs on the Pacific (House Ex. Doc. 76, 34th Congress, 3rd session, 1857, 34-53).

Heye, George G. (a) Certain Aboriginal Pottery from Southern California (Indian Notes and Monographs, 7, 1919, no. 1).
(b) Certain Artifacts from San Miguel Island, California (Idem, 7, 1921, no. 1).
(c) Ethnological Objects from Sonora and Sinaloa (Indian Notes, 1, 1924, 221-222).

Hoffman, W. J. Poisoned Arrows (AA, 4, 1891, 67-71).

Hooper, Lucile. The Cahuilla Indians (Univ. Calif. Publ. Amer. Arch. Ethn., 16, 1920, no. 6).

Hopkins, Sarah Winnemucca. Life Among the Piutes. Boston, 1883

Hough, Walter. (a) Fire-Making Apparatus in the U. S. National Museum (RUSNM, 1888, 1890, 531-587).
(b) Primitive American Armor (Idem, 1893, 1895, 625-651).
(c) Apache and Navaho Fire-making (AA, n.s., 3, 1901, 585-586).

113

(d) The Hopi Indians. Cedar Rapids, Ia., 1915.
(e) The Hopi Indian Collection in the United States National Museum (Proc. USNM, 54, 1918, 235–296).

HRDLIČKA, ALEŠ. (a) Physical and Physiological Observations on the Navaho (AA, n.s., 2, 1900, 339–345).
(b) Notes on the Indians of Sonora, Mexico (Idem, 6, 1904, 51–89).
(c) A Cora Cradle (Idem, 7, 1905, 361–362).
(d) Notes on the San Carlos Apache (Idem, 480–495).
(e) Notes on the Pima of Arizona (Idem, 8, 1906, 39–46).
(f) Physiological and Medical Observations Among the Indians of the United States and Northern Mexico (BBAE, 34, 1908).
(g) On the Stature of the Indians of the Southwest and of Northern Mexico (Putnam Anniversary Volume, New York, 1909, 405–426).

IVES, JOSEPH C. Report Upon the Colorado River of the West (House Ex. Doc. 90, 36th Congress, 1st session, Washington, 1861).

JAMES, GEORGE WHARTON. (a) In and Around the Grand Canyon. Boston, 1900.
(b) The Indians of the Painted Desert Region. Boston, 1903.
(c) Palomas Apaches and their Baskets (Sunset, 11, 1903, 146–153).
(d) Indian Blankets and their Makers. Chicago, 1914.

KIDDER, ALFRED VINCENT. An Introduction to the Study of Southwestern Archaeology. New Haven, 1924.

KISSELL, MARY LOIS. Basketry of the Papago and Pima (Pa AMNH, 17, 1916, 115–264).

KRAUSE, AUREL. Tlinkit-Indianer. Jena, 1885.

KROEBER, A. L. (a) A Preliminary Sketch of the Mohave Indians (AA, n.s., 4, 1902, 276–285).
(b) The Arapaho (BAMNH, 18, 1902–1907, 1–229, 279–454).
(c) A Ghost-Dance in California (JAFL, 17, 1904, 32–35).
(d) Types of Indian Culture in California (Univ. Calif. Publ. Amer. Arch. Ethn., 2, 1904, no. 3).
(e) The Religion of the Indians of California (Idem, 4, 1907, no. 6)
(f) A Mission Record of the California Indians (Idem, 8, 1908, no. 1).
(g) Ethnography of the Cahuilla Indians (Idem, no. 2).
(h) Ethnology of the Gros Ventre (Pa AMNH, 1, 1908, 141–281).
(i) Origin Tradition of the Chemehuevi Indians (JAFL, 21, 1908, 240–242).
(j) Zuñi Kin and Clan (Pa AMNH, 18, 1917, 39–204).
(k) Games of the California Indians (AA, n.s., 22, 1920, 272–277).
(l) Yuman Tribes of the Lower Colorado (Univ. Calif. Publ. Amer. Arch. Ethn., 16, 1920, 475–485).
(m) Basket Designs of the Mission Indians of California (Pa AMNH, 20, 1922, 149–183).
(n) Earth-Tongue, A Mohave (*American Indian Life*, E. C. Parsons, ed. New York, 1922, 189–202).

(o) Elements of Culture in Native California (Univ. Calif. Publ. Amer. Arch. Ethn., 13, 1922, 259-328).
(p) Handbook of Indians of California (BBAE, 78, 1925).
LEECHMAN, J. D. AND HARRINGTON, M. R. String Records of the North West (Indian Notes and Monographs, Misc., 16, 1921).
LETHERMAN, JONA. Sketch of the Navajo Tribe of Indians, Territory of New Mexico (R Smithson, 1855, 1856, 283-297).
LEWIS AND CLARK (see Thwaites).
LIPPS, OSCAR H. The Navajos. Cedar Rapids, Iowa, 1909.
LOWIE, ROBERT H. (a) The Northern Shoshone (PaAMNH, 2, 1909, 165-306).
(b) The Assiniboine (Idem, 4, 1909, 1-270).
(c) Social Life of the Crow Indians (Idem, 9, 1912, 179-248).
(d) Military Societies of the Crow Indians (Idem, 11, 1913, 143-217).
(e) Societies of the Hidatsa and Mandan (Idem, 219-358).
(f) Dances and Societies of the Plains Shoshone (Idem, 11, 1915, 803-835).
(g) The Tobacco Society of the Crow Indians (Idem, 21, 1919, 101-120).
(h) The Material Culture of the Crow Indians (Idem, 21, 1922, 201-270).
(i) Notes on Shoshonean Ethnography (Idem, 20, 1924, 185-314).
(j) Primitive Religion. New York, 1924.
(k) Shoshonean Tales (JAFL, 37, 1924, 1-242).
(l) The Cultural Connection of Californian and Plateau Shoshonean Tribes (Univ. Calif. Publ. Amer. Arch. Ethn., 20, 1923, 145-156).
LUMHOLTZ, CARL. (a) The Huichol Indians of Mexico (BAMNH, 10, 1898, 1-14).
(b) The Meaning of the Head-Plume Tawiakami Used by the Huichol Indians (Boas Anniversary Volume, 1906, 316-319).
(c) Unknown Mexico. 2 vols., New York, 1902.
MACKENZIE, ALEXANDER. Voyages from Montreal through the Continent of North America, etc. 2 vols., Toronto, 1911.
MASON, J. ALDEN. (a) The Ethnology of the Salinan Indians (Univ. Calif. Publ. Amer. Arch. Ethn., 10, 1912, 97-240).
(b) The Pinole Fiesta at Azqueltán (Univ. of Penna. Museum Journal, 3, 1912, 44-50).
(c) The Tepehuán Indians of Azqueltán (Proc. XVIII Int. Cong. Americanists, London, 1913, 344-351).
(d) Tepecano Prayers (International Journal of American Linguistics, 1, 1918, 91-153).
(e) The Papago Harvest Festival (AA, n.s., 22, 1920, 13-28).
MASON, OTIS T. (a) The Ray Collection from the Hupa Reservation (R Smithson, 1886, 1889, 205-239).
(b) Cradles of the American Aborigines (RUSNM, 1887, 1889, 161-212).

113

(c) The Human Beast of Burden (Idem, 237–295).
(d) Music in Honduras (AA, 2, 1889, 158).
(e) Aboriginal Skin-Dressing (RUSNM, 1889, 1891, 553–589).
(f) North American Bows, Arrows, and Quivers (R Smithson, 1893, 1894, 631–679).
(g) Primitive Travel and Transportation (RUSNM, 1894, 1896, 237–593).
(h) The Geographical Distribution of the Musical Bow (AA, 10 1897, 380).
(i) The Technic of Aboriginal American Basketry (Idem, n.s., 3, 1901, 109–128).
(j) Traps of the American Indians—A Study in Psychology and Invention (R Smithson, 1901, 1902, 461–473).
(k) Aboriginal American Basketry (RUSNM, 1902, 1904, 171–548).

Matthews, Washington. (a) Navajo Weavers (RBAE, 3, 1884, 371–392).
(b) Basket Drum (AA, 7, 1894, 202–208).
(c) Songs of Sequence of the Navajos (JAFL, 7, 1894, 185–194).
(d) Navaho Legends (Memoirs, American Folk-Lore Society, 5, 1897).
(e) Ichthyophobia (JAFL, 2, 1898, 105–112).
(f) The Night Chant, A Navaho Ceremony (Mem AMNH, 6, 1902).

McGee, W. J. The Seri Indians (RBAE, 17, 1898, pt. 1, 1–344).

McKern, W. C. Functional Families of the Patwin (Univ. Calif. Publ. Amer. Arch. Ethn., 13, 1922, 235–258).

Means, P. A. Distribution and Use of Slings in Pre-Columbian América (Proc USNM, 55, 1919, 317–349).

Meares, John. Voyages Made in the Years 1788 and 1789, from China to the Northwest Coast of America, etc. London, 1790.

Mindeleff, Cosmos. Navaho Houses (RBAE, 17, 1898, pt. 2, 469–518).

Montandon, George. Gravures et Peintures Rupestres des Indiens du Cataract Canyon (Arizona) (L'Anthropologie, 33, 1923, 347–355).

Mooney, James. (a) Notes on the Cosumnes Tribes of California (AA, 3, 1890, 259–262).
(b) The Ghost-Dance Religion and the Sioux Outbreak of 1890 (RBAE, 14, pt. 2, 1896).
(c) Calendar History of the Kiowa Indians (Idem, 17, pt. 1, 1901).

Morice, A. G. (a) The Western Dénés—Their Manners and Customs (Proceedings, Canadian Institute, 3rd ser., 7, 1889, 109–174).
(b) Notes, Archæological, Industrial, and Sociological, on the Western Dénés (Transactions, Canadian Institute, 4, 1895, 1–222).
(c) The Canadian Dénés (Annual Archæological Report, 1905, Toronto, 1906, 187–219).

Morse, Edward S. Ancient and Modern Methods of Arrow Release (Bulletin, Essex Institute, 17, 1885, 145–198). 113

Morss, Noel. Archaeological Explorations on the Middle Chinlee, 1925 (Memoirs American Anthropological Association, 34, 1927).

Nelson, Edward W. Smaller Mammals of North America (National Geographic Magazine, 33, 1918, 371–493).

Nordenskiöld, Erland. An Ethno-Geographical Analysis of the Material Culture of Two Indian Tribes in the Gran Chaco (Comparative Ethnological Studies, 1, Göteborg, 1919).

North, Arthur W. The Native Tribes of Lower California (AA, n.s., 10, 1908, 236–250).

Palmer, Edward. Plants Used by the Indians of the United States (American Naturalist, 12, 1878, 593–606, 646–655).

Parsons, Elsie Clews. (a) A Zuñi Detective (Man, 16, 1916, no. 99).
(b) Note on Navajo War Dance (AA, n.s., 21, 1919, 465–467).
(c) Oraibi in 1920 (Idem, 24, 1922, 283–294).
(d) Laguna Genealogies (Pa AMNH, 19, pt. 5, 1923).
(e) Zuñi Names and Naming Practices (JAFL, 36, 1923, 171–176).
(f) The Scalp Ceremonial of Zuñi (Memoirs, American Anthropological Association, 31, 1924).

Pattie, James Ohio. Personal Narrative During an Expedition from St. Louis, to the Pacific Ocean and Back Through Mexico (Early Western Travels, 1748–1846, Reuben Gold Thwaites, ed., 18, Cleveland, 1905).

Phonetic Transcription of Indian Languages (Smithsonian Miscellaneous Collections, 66, 1916, no. 6).

Pope, Saxton T. A Study of Bows and Arrows (Univ. Calif. Publ. Amer. Arch. Ethn., 13, 1923, 329–414).

Porsild, Morten P. Studies on the Material Culture of the Eskimo in West Greenland (Meddelelser om Grönland, 51, 1915, 113–250).

Powell, J. W. Explorations of the Colorado River of the West (Washington, 1875).

Powers, Stephen. Tribes of California (Contributions to North American Ethnology, 3, 1877).

Preuss, Konrad T. Die Nayarit-Expedition. Die Religion der Cora-Indianer. Leipzig, 1, 1912.

Putnam, G. R. A Yuma Cremation (AA, 8, 1895, 264–267).

Reagan, Albert. Deep Creek Indians. (El Palacio, 5, 1917, 30–42).

Reed, Verner Z. Ute Bear Dance (AA, 9, 1896, 237).

Reid, Hugo. Account of the Indians of Los Angeles Co., Cal. (Bulletin of the Essex Institute, 17, 1885, 1–33).

Reports of the Commissioner of Indian Affairs (Washington, various dates).

Robinson, Alfred. Life in California. New York, 1846.

115

Russell, Frank. (a) An Apache Medicine Dance (AA, 11, 1898, 367–372).
(b) Explorations in the Far North. Des Moines, 1898.
(c) Pima Annals (AA, n.s., 5, 1903, 76–80).
(d) The Pima Indians (RBAE, 26, 1908, 3–389).

Safford, William E. Daturas of the Old World and New: An Account of their Narcotic Properties and their Use in Oracular and Initiatory Ceremonies (R Smithson, 1920, 1922, 537–567).

Sapir, Edward. (a) Notes on the Takelma Indians of Southwestern Oregon (AA, n.s., 9, 1907, 251–275).
(b) Takelma Texts (Anthropological Publications, University of Pennsylvania Museum, 2, 1909).
(c) Wishram Texts (Publications, American Ethnological Society, 2, 1909).
(d) Yana Texts (Univ. Calif. Publ. Amer. Arch. Ethn., 9, 1910, 1–235).

Saville, Marshall H. (a) A Primitive Maya Musical Instrument (AA, 10, 1897, 272–273).
(b) The Musical Bow in Ancient Mexico (Idem, 11, 1898, 280–284).
(c) Turquois Mosaic Art in Ancient Mexico (Contributions from the Museum of the American Indian, 6, 1922).

Sedgwick, Mary Katrine. Acoma: The Sky City. Cambridge, 1926.

Setchell, William Albert. Aboriginal Tobaccos (AA, n.s., 23, 1921, 397–414).

Shufeldt, R. W. (a) Arrow Release Among the Navajos (American Naturalist, 21, 1887, 784–786).
(b) The Navaho Tanner (Proc USNM, 11, 1888, 59–66).
(c) Mortuary Customs of the Navajo Indians (American Naturalist, 25, 1891, 303–306).
(d) Some Observations on the Havesu-pai Indians (Proc USNM, 14, 1891, 387–390).
(e) The Evolution of House-Building Among the Navajo Indians (Idem, 15, 1892, 279–282).

Sinclair, A. T. Tattooing of the North American Indians (AA, n.s., 11, 1909, 362–400).

Sitgreaves, L. Report of Expedition down the Zuñi and Colorado Rivers (Senate Ex. Doc. 59, 32nd Congress, 2d session, 1853).

Skinner, Alanson. Notes on the Plains Cree (AA, n.s., 16, 1914, 68–87).

Smart, Charles. Notes on the "Tonto" Apaches (R Smithson, 1867, 1868, 417–419).

Snyder, J. F. Our Digger Indian Neighbors (The Antiquarian, 1, 1897, 325–327).

Sparkman, Philip Stedman. The Culture of the Luiseño Indians (Univ. Calif. Publ. Amer. Arch. Ethn., 8, 1908, no. 4).

Spier, Leslie. (a) The Havasupai of Cataract Cañon (American Museum Journal, 18, 1918, 637–645).
(b) The Sun Dance of the Plains Indians: Its Development and Diffusion (Pa AMNH, 16, 1921, 451–527).

1: Spier E-5 (1918) 1928
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(c) A Suggested Origin for Gentile Organization (AA, n.s., 24, 1922, 487–489). 113

(d) Havasupai Days (*American Indian Life*, E. C. Parsons, ed., New York, 1922, 179–187).

(e) Southern Diegueño Customs (Univ. Calif. Publ. Amer. Arch. Ethn., 20, 1923, 297–358).

(f) Havasupai (Yuman) Texts (International Journal of American Linguistics, 3, 1924, 109–116).

(g) Zuñi Weaving Technique (AA., n.s., 26, 1924, 64–85).

(h) The Association Test as a Method of Defining Religious Concepts (AA, n.s., 29, 1927, 267–270).

SPINDEN, HERBERT JOSEPH. The Nez Percé Indians (Memoirs, American Anthropological Association, 2, 1908, pt. 3).

SPROAT, GILBERT M. Scenes and Studies of Savage Life. London, 1868.

ST. CLAIR, H. H. AND LOWIE, R. H. Shoshone and Comanche Tales (JAFL, 22, 1909, 265–282).

STARR, FREDERICK. (a) A Study of A Census of the Pueblo of Cochiti, New Mexico (Proceedings, Davenport Academy of Natural Sciences, 7, 1900, 33–44).

(b) Notched Bones from Mexico (Idem, 101–107).

STATISTICS OF INDIAN TRIBES, INDIAN AGENCIES AND INDIAN SCHOOLS (Washington, 1899).

STEPHEN, ALEXANDER M. (a) The Navajo Shoemaker (Proc USNM, 1888, 11, 1889, 131–133).

(b) The Navajo (AA, 6, 1893, 345–362).

STEVENSON, JAMES. Illustrated Catalogue of the Collections Obtained from the Indians of New Mexico and Arizona in 1879 (RBAE, 2, 1883, 319–422).

STEVENSON, MATILDA COXE. (a) The Sia (RBAE, 11, 1894, 3–157).

(b) The Zuñi Indians (RBAE, 23, 1904, 3–608).

STRATTON, R. B. Captivity of the Oatman Girls. Salem, Ore., 1909.

TEIT, JAMES. (a) The Thompson Indians of British Columbia (Mem AMNH, 2, 1900, pt. 4).

(b) The Lillooet Indians (Idem, 4, 1906, pt. 5).

(c) The Shushwap (Idem, 4, 1909, pt. 7).

TEN KATE, H. F. C. (a) Reizen en Onderzoekingen in Noord-Amerika. Leiden, 1885.

(b) Geographical Distribution of the Musical Bow (AA, 11, 1898, 93–94).

THWAITES, REUBEN GOLD, ed. Original Journals of the Lewis and Clark Expedition, 1804–1806. New York, 1904–5.

see Pattie, James Ohio.

TOZZER, ALFRED M. (a) A Navajo Sand Picture of the Rain Gods and its Attendant Ceremony (International Congress of Americanists, 13 sess., 1902, 1905, 147–156).

(b) A Note on Star Lore Among the Navajos (JAFL, 21, 1908, 28–32).

113. TRIPPEL, EUGENE J. The Yuma Indians (Overland Monthly, 2nd ser., 13, 1889, 561-584; 14, 1889, 1-11).

VOTH, H. R. The Oraibi Powamu Ceremony (Field Museum of Natural History, Anthropological Publication 61, 1901).

WATERMAN, T. T. The Religious Practices of the Diegueño Indians (Univ. Calif. Publ. Amer. Arch. Ethn., 8, 1910, 271-358).

WHIPPLE, A. W. Report of Explorations for a Railway Route near the Thirty-fifth Parallel, etc. (Reports of Explorations and Surveys. . . . from the Mississippi River to the Pacific Ocean, 3, Washington, 1856).

WHIPPLE, A. W., EWBANK, THOMAS, AND TURNER, WM. W. Report Upon the Indian Tribes (Idem).

WHITTEMORE, ISAAC T. *In* Among the Pimas or The Mission to the Pima and Maricopa Indians. Albany, 1893.

WINSHIP, GEORGE PARKER. The Coronado Expedition, 1540-1542 (RBAE. 14, 1896, pt. 1).

WISSLER, CLARK. (a) Material Culture of the Blackfoot Indians (Pa AMNH, 5, 1910, 1-175).
(b) Societies and Dance Associations of the Blackfoot Indians (Idem, 11, 1913, 359-460).
(c) Material Cultures of the North American Indian (AA, n.s., 16, 1914, 447-505).
(d) Costumes of the Plains Indians (Pa AMNH, 17, 1915, 39-91).
(e) Structural Basis to the Decoration of Costumes Among the Plains Indians (Pa, AMNH 93-114).
(f) The American Indian 2nd ed., New York, 1922.

WOOTON, E. O. AND STANDLEY, PAUL C. Flora of New Mexico (Contributions from the U. S. National Herbarium, 19, 1915).

YARROW, H. C. (a) Introduction to the Study of Mortuary Customs Among the North American Indians. Washington, 1880.
(b) A Further Contribution to the Study of Mortuary Customs of the North American Indians (RBAE, 1, 1881, 87-203).

YATES, LORENZO G. Fragments of the History of a Lost Tribe (AA, 4, 1891, 373-376).

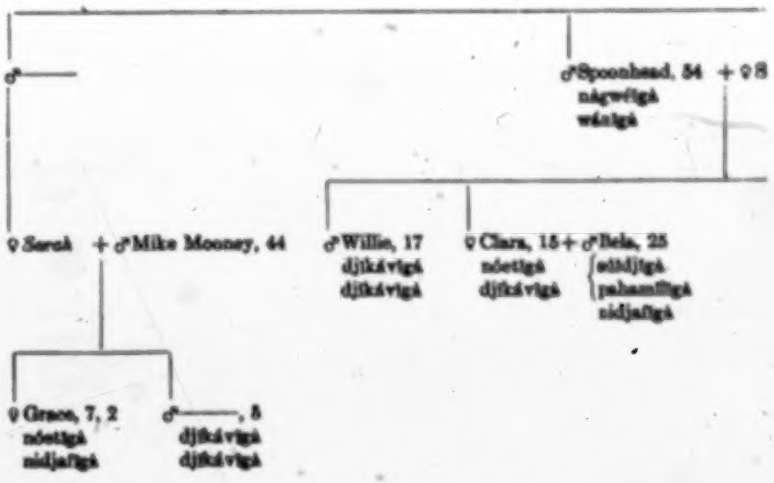
ZELENY, CHARLES. The Relative Numbers of Twins and Triplets (Science, n.s., 53, 1921, 262-263).

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

601


♂ ——
♂ Spoonhead, 54 + ♀ 8
nágwí'igá
wá'igá
♀ Seruá + ♂ Mike Mooney, 44
♂ Willie, 17
djikávigá
djikávigá
♀ Clara, 15 + ♂ Bela, 25
nóetigá
djikávigá
wiidjigá
pahamigá
nidjañgá
♀ Grace, 7, 2
nóetigá
nidjañgá
♂ ——, 5
djikávigá
djikávigá

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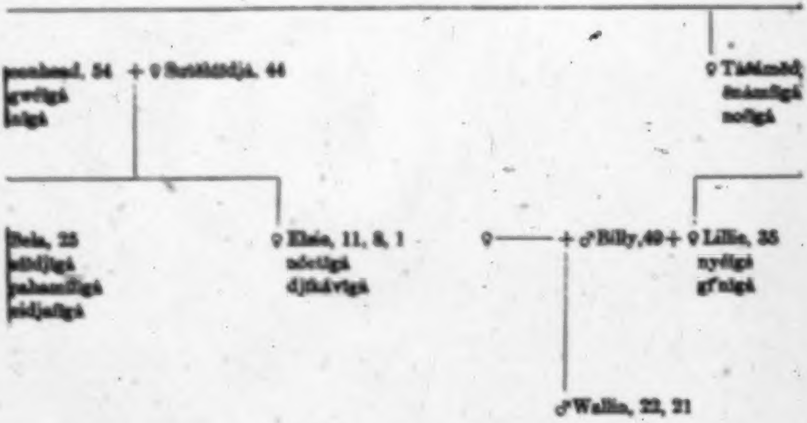
1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

601



…onhead, 54 + ♀ Sutóhítdja, 44
…gwilgá
…áigá
…Dela, 25
…ádíjigá
…yahamígá
…sídjaígá
♀ Elsie, 11, 8, 1
nóctigá
djíhávigá
♀ Tátámótí…
ámámígá
nóígá
♀ —— + ♂ Billy, 40 + ♀ Lillie, 35
nyéigá
gí'uigá
♂ Wallie, 22, 21

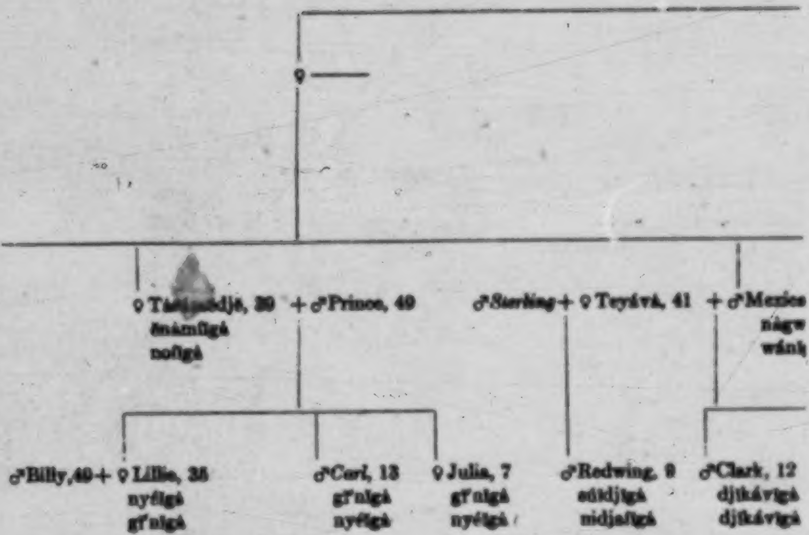
[p. 372 A-2]

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

601


♀ —
♀ Tá[illegible]djé, 39 + ♂ Prince, 49
émámfigá
nofigá
♂ Sterling + ♀ Teyává, 41 + ♂ Mexica
nágw
wánk
♂ Billy, 49 + ♀ Lillie, 35
nyígá
gí'nigá
♂ Carl, 13
gí'nigá
nyégá
♀ Julia, 7
gí'nigá
nyégá
♂ Redwing, 9
súdjigá
nidjafigá
♂ Clark, 12
djikávigá
djikávigá

Wallin, 22, 21

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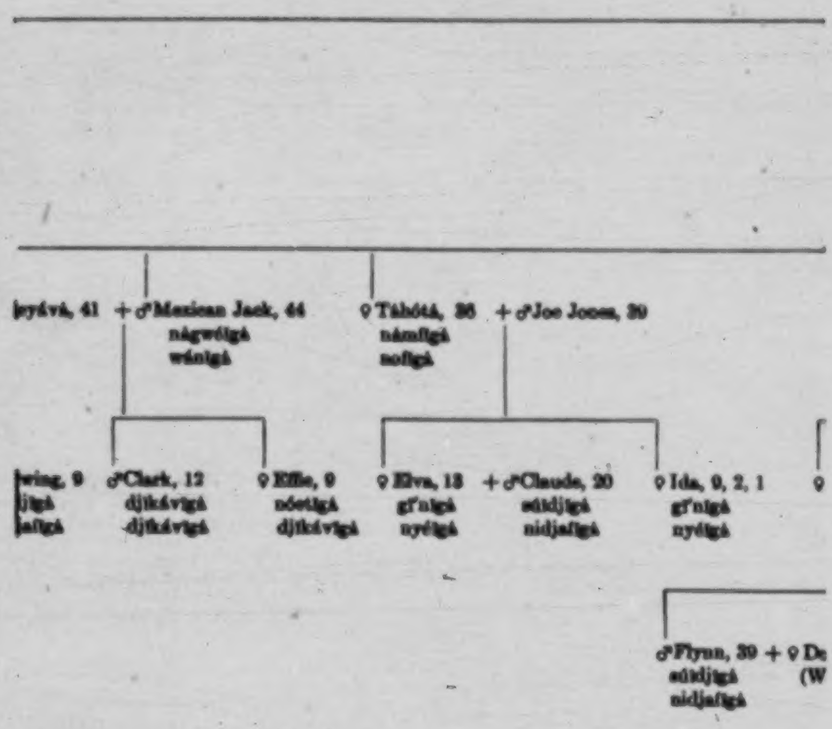
1:Spier E-5 (1918) 1928
NT14 Plateau Yumans NT14
Havasupai

Relatives Through Mother

601


pyává, 41 + ♂Mexican Jack, 44
nágwéigá
wánigá
♀Táhótá, 36 + ♂Joe Jones, 30
námfigá
nofigá
wing, 9
jigá
afigá
♂Clark, 12
djikávigá
djikávigá
♀Effie, 9
nóetigá
djikávigá
♀Elva, 13 + ♂Claude, 20
gi'nigá
nyéigá
süidjigá
nidjafigá
♀Ida, 9, 2, 1
gi'nigá
nyéigá
♀
♂Flynn, 30 + ♀De
süidjigá
nidjafigá
(W

[p.392 A-4]

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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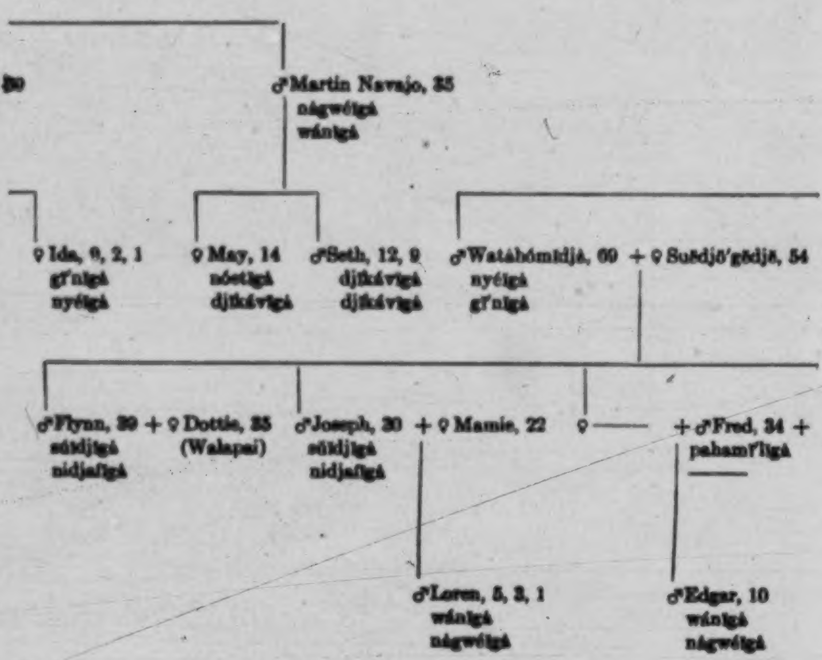
30
♂Martin Navajo, 25
nágwéigá
wánigá
♀Ida, 9, 2, 1
gi'nigá
nyéigá
♀May, 14
nóetigá
djikávigá
♂Seth, 12, 9
djikávigá
djikávigá
♂Watáhómidjá, 69
+ ♀Suědjŏ'gădjă, 54
nyéigá
gi'nigá
♂Flynn, 39 + ♀Dottie, 35
(Walapai)
sŭidjigá
nidjafigá
♂Joseph, 30 + ♀Mamie, 22
sŭidjigá
nidjafigá
♀ —
+ ♂Fred, 34 +
pahami'ligá
♂Loren, 5, 3, 1
wánigá
nágwéigá
♂Edgar, 10
wánigá
nágwéigá

[p. 392 A-5]

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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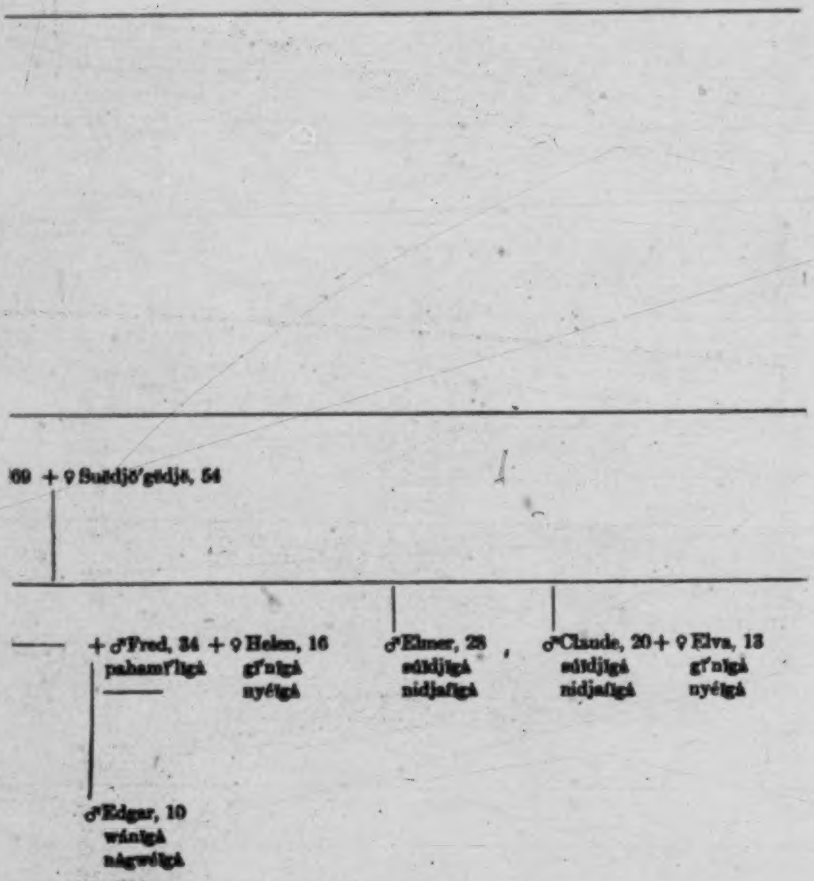
69 + ♀ Suădjŏ'gĕdjĕ, 54
+ ♂ Fred, 34
pahamī'ligá
+ ♀ Helen, 16
gi'nigá
nyéigá
♂ Elmer, 28
súldjigá
nidjafigá
♂ Claude, 20
súldjigá
nidjafigá
+ ♀ Elva, 13
gi'nigá
nyéigá
♂ Edgar, 10
wánigá
nágwéigá

[p. 392 A-6]

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

601

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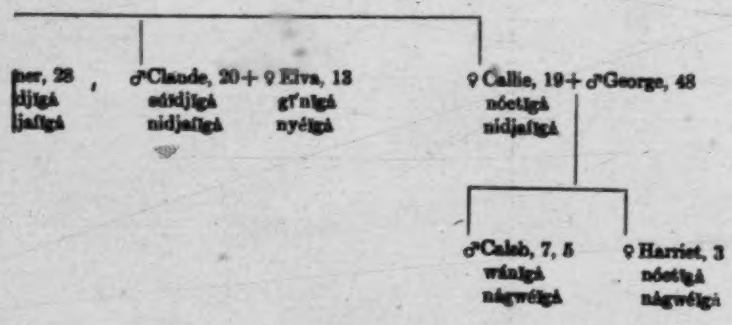
ner, 28
djigá
jafigá
♂Claude, 20+
súdjigá
nidjafigá
♀Elva, 13
gi'nigá
nyéigá
♀Callie, 19+
nóctigá
nidjafigá
♂George, 48
♂Caleb, 7, 5
wánigá
nágwéigá
♀Harriet, 3
nóctigá
nágwéigi

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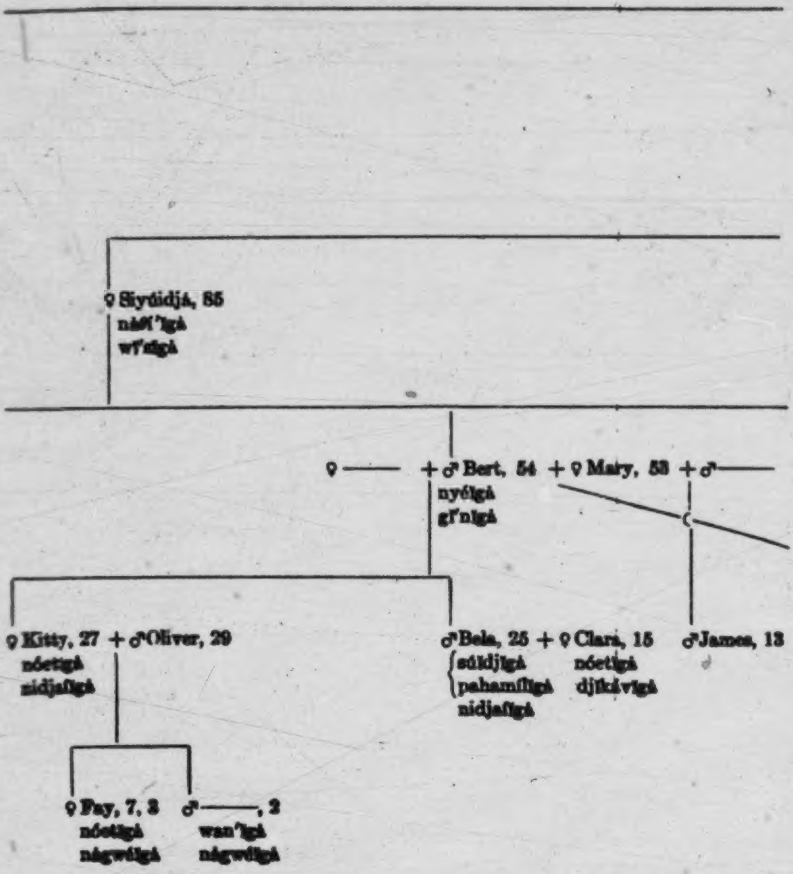
NT14 Plateau Yumans NT14

Havasupai

601



♀ Siyúidjá, 85
náśí'lgá
wí'nígá
♀ —— + ♂ Bert, 54 + ♀ Mary, 53 + ♂ ——
nyélgá
gí'nigá
♀ Kitty, 27 + ♂ Oliver, 29
nóetigá
nidjafigá
♂ Bela, 25 + ♀ Clara, 15
súldjigá
pahamíligá
nidjafigá
nóetigá
djíkávigá
♂ James, 13
♀ Fay, 7, 3
nóetigá
nágwáligá
♂ ——, 2
wan'lgá
nágwáligá

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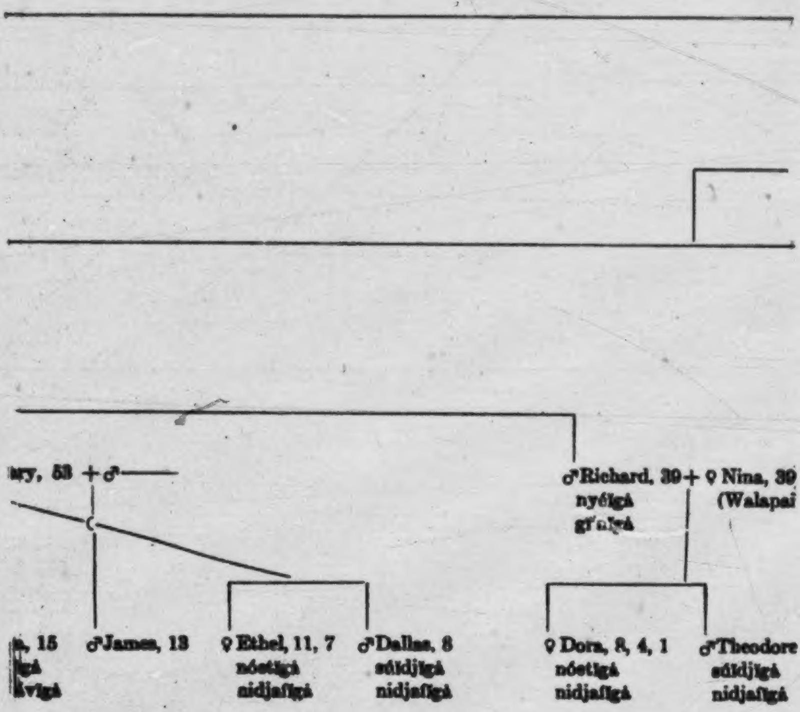
5

601


ary, 53 + ♂
♂Richard, 39 + ♀ Nina, 39
nyélgá
gi'ulgá
(Walapai
a, 15
igá
ávigá
♂James, 13
♀ Ethel, 11, 7
nóstigá
nidjafigá
♂Dallas, 8
súldjigá
nidjafigá
♀ Dora, 8, 4, 1
nóstigá
nidjafigá
♂Theodore
súldjigá
nidjafigá

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1:Spier E-5 (1918) 1928

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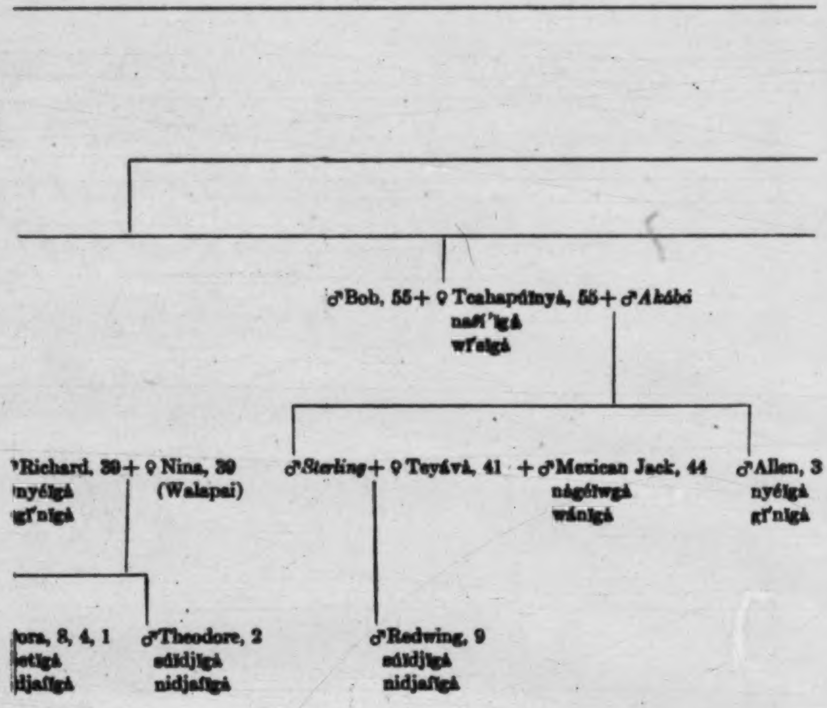
Havasupai

601



♂Bob, 55+ ♀Tcahapúinyá, 55+ ♂*Akábá*
naśí'igá
wĭ'sigá
Richard, 39+ ♀Nina, 39
nyélgá
gí'nigá
(Walapai)
♂*Sterling*+ ♀Teyává, 41 + ♂Mexican Jack, 44
nágélwgá
wánigá
♂Allen, 3
nyélgá
gí'nigá
ora, 8, 4, 1
etigá
djafigá
♂Theodore, 2
súídjigá
nidjafigá
♂Redwing, 9
súídjigá
nidjafigá

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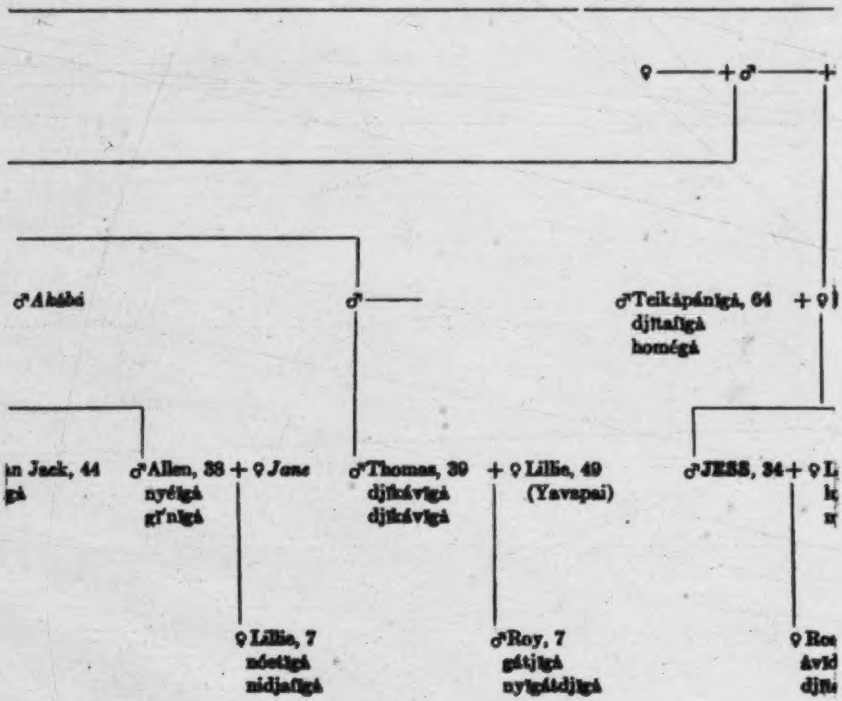
1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

601



♀ —— + ♂ —— +
♂ *Akábá*
♂ ——
♂ Tcikápánigá, 64
djitafigá
homégá
+ ♀
n Jack, 44
gá
♂ Allen, 38 + ♀ *Jane*
nyéigá
gí'nigá
♂ Thomas, 39
djikávigá
djikávigá
+ ♀ Lillie, 49
(Yavapai)
♂ JESS, 34 + ♀ L
k
n
♀ Lillie, 7
nóetigá
nidjafigá
♂ Roy, 7
gátjigá
nyigáádjigá
♀ Ro
ávid
djite

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Havasupai

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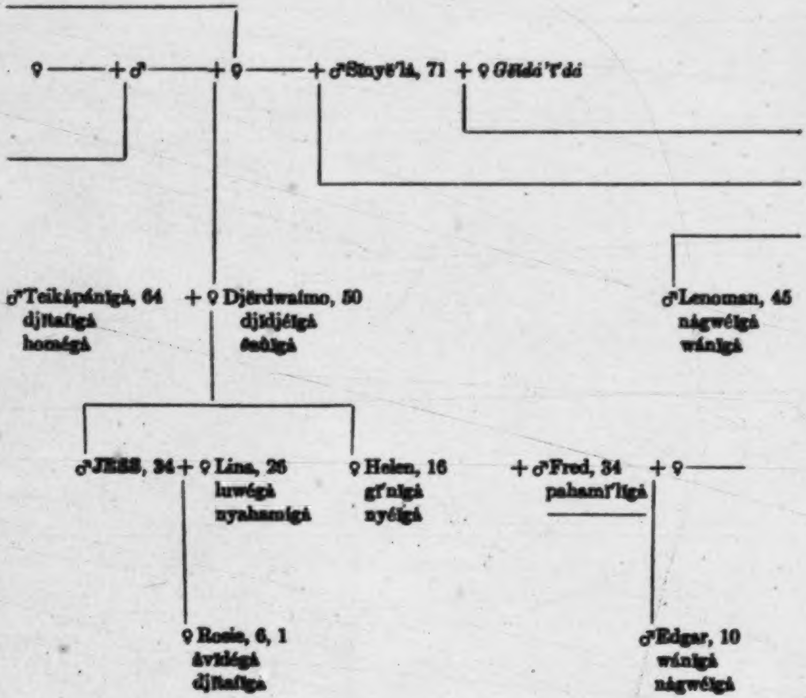
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hoságá
+ ♀ Djĕrdwaimo, 50
djīdjélgá
ĕsūlgá
♂Lenoman, 45
nágwélgá
wánlgá
♂JESS, 34 + ♀ Lina, 26
luwégá
nyahamigá
♀ Helen, 16
gí'nigá
nyélgá
+ ♂Fred, 34
pahamí'ligá
+ ♀
♀ Rosie, 6, 1
ávīlégá
djītafiga
♂Edgar, 10
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Havasupai

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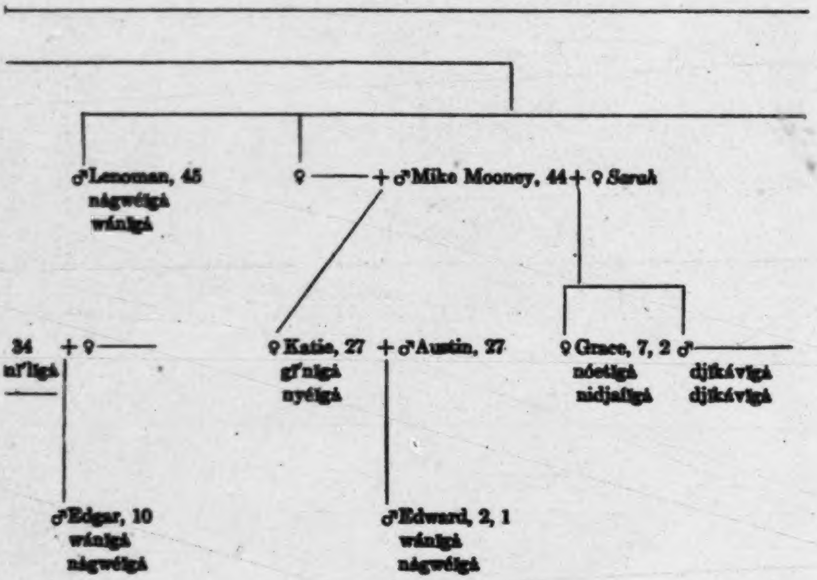
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+ ♂Austin, 27
♀Grace, 7, 2
nóetigá
nidjaligá
♂
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djikávigá
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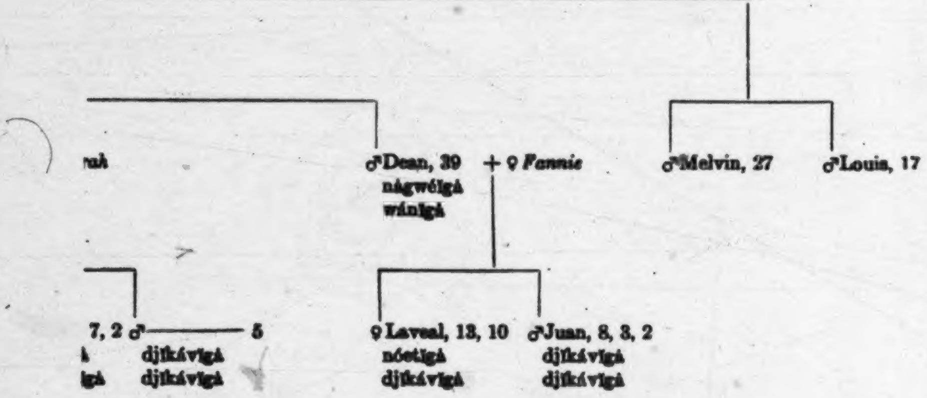
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♀ Laveal, 13, 10
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♂Juan, 8, 3, 2
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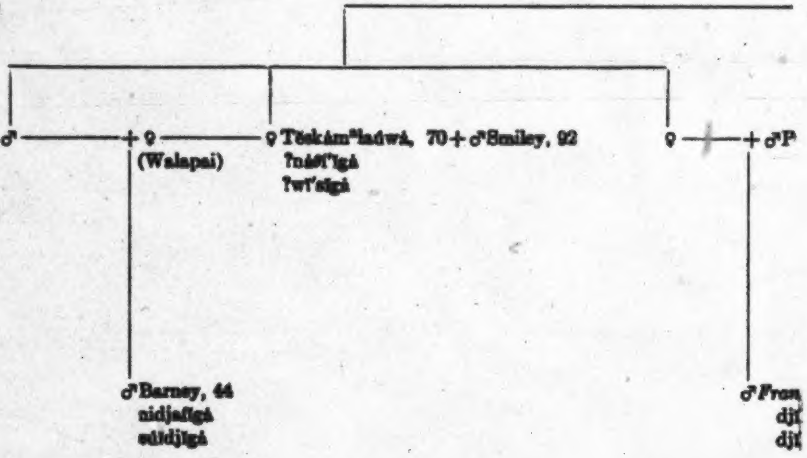
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♀ Tëskámᵃlaúwá, 70
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ʔwi'sigá
♂ Smiley, 92
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♂ P
♂ Barney, 44
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sdídjigá
♂ *Fran*
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Havasupai

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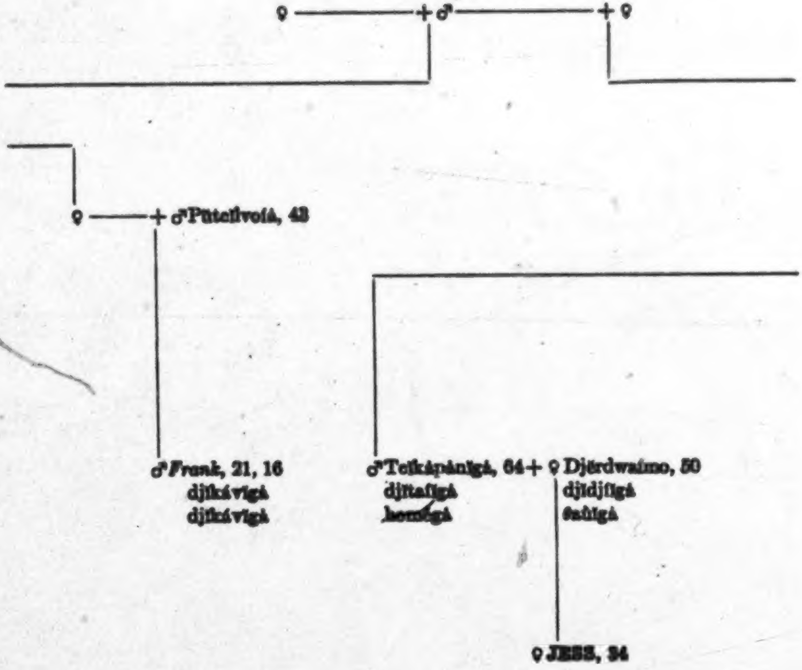
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♂*Frank*, 21, 16
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djitafigá
homígá
djidjfigá
šaúigá
♀JESS, 34

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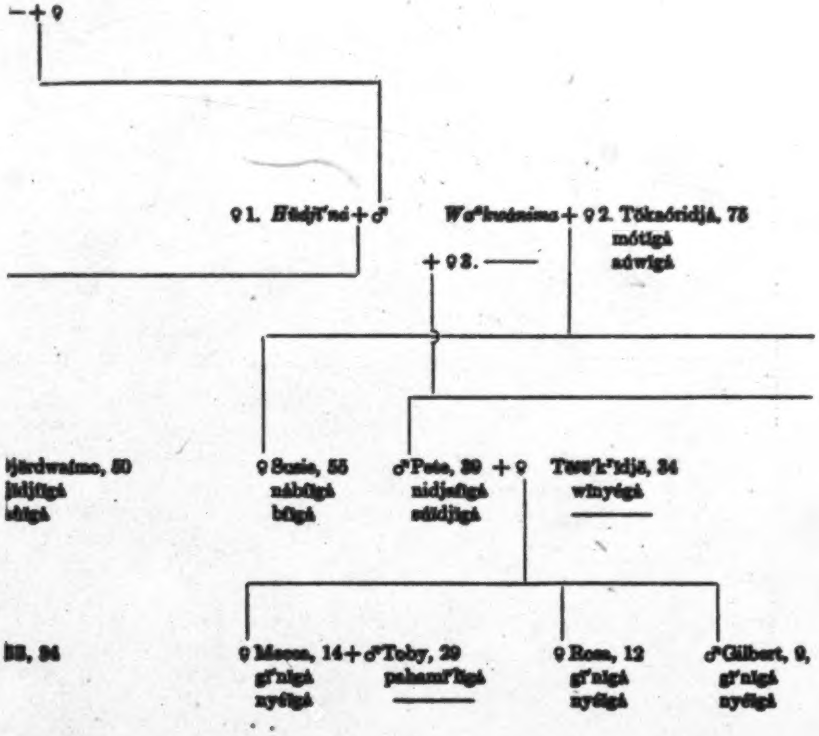
Relatives Through Father.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mótigà
aúwigà
+ ♀3. ——
jàrdwaimo, 50
jidjígà
adígà
♀Susie, 55
nábûgà
bûgà
♂Pete, 39 + ♀
Tasa'k'idjà, 34
winyégà
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55, 24
♀Maon, 14 + ♂Toby, 29
gi'nigà
nyégà
pahami'ligà
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♀Rose, 12
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♂Gilbert, 9,
gi'nigà
nyégà

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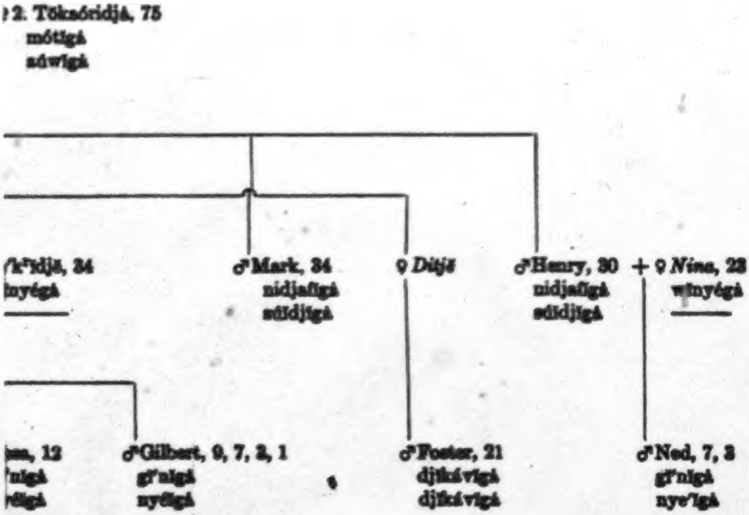
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sáidjigá
♀ *Ditjá*
♂Henry, 30
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sáidjigá
+ ♀ *Nina*, 23
wínyégá
m, 12
'nigá
égá
♂Gilbert, 9, 7, 2, 1
gi'nigá
nyégá
♂Foster, 21
djikávigá
djikávigá
♂Ned, 7, 3
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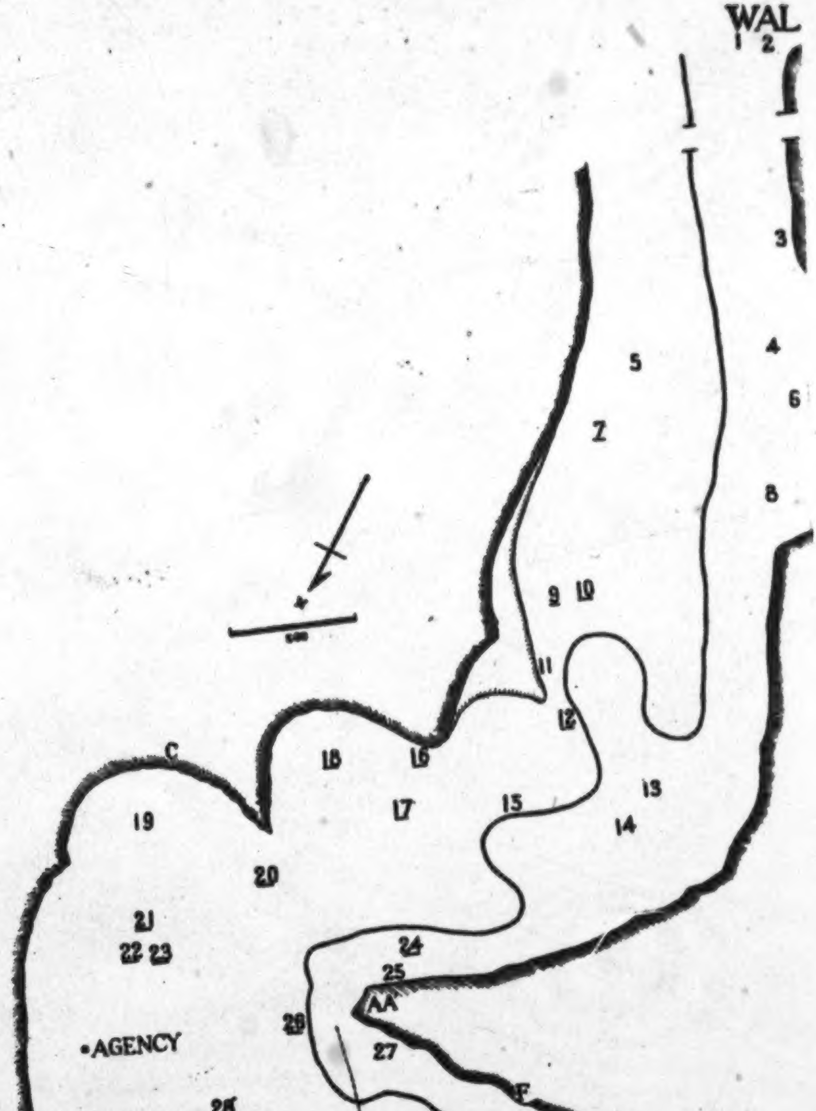
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NT14 Plateau Yumans NT14

Havasupai

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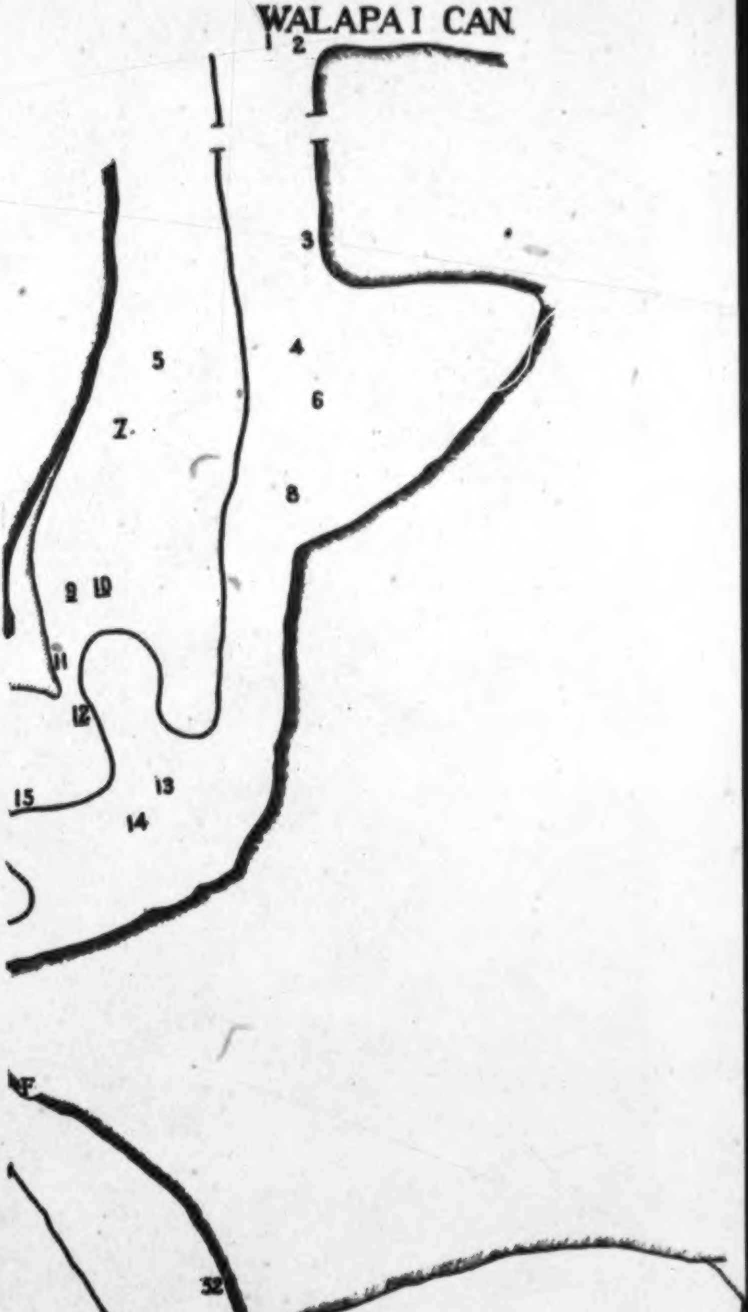
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NT14 Plateau Yumans NT14

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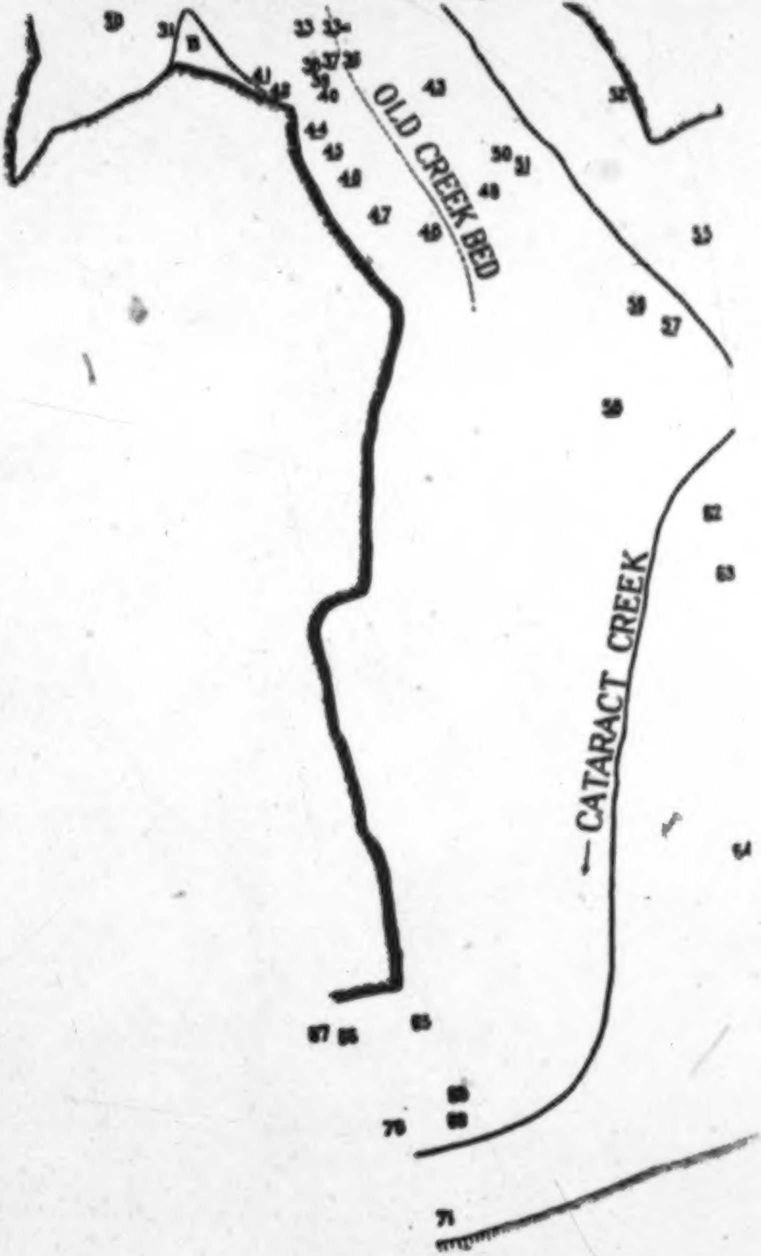
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Fig. 20. Map of Camps in the Havasupai Village, Cataract

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Havasupai

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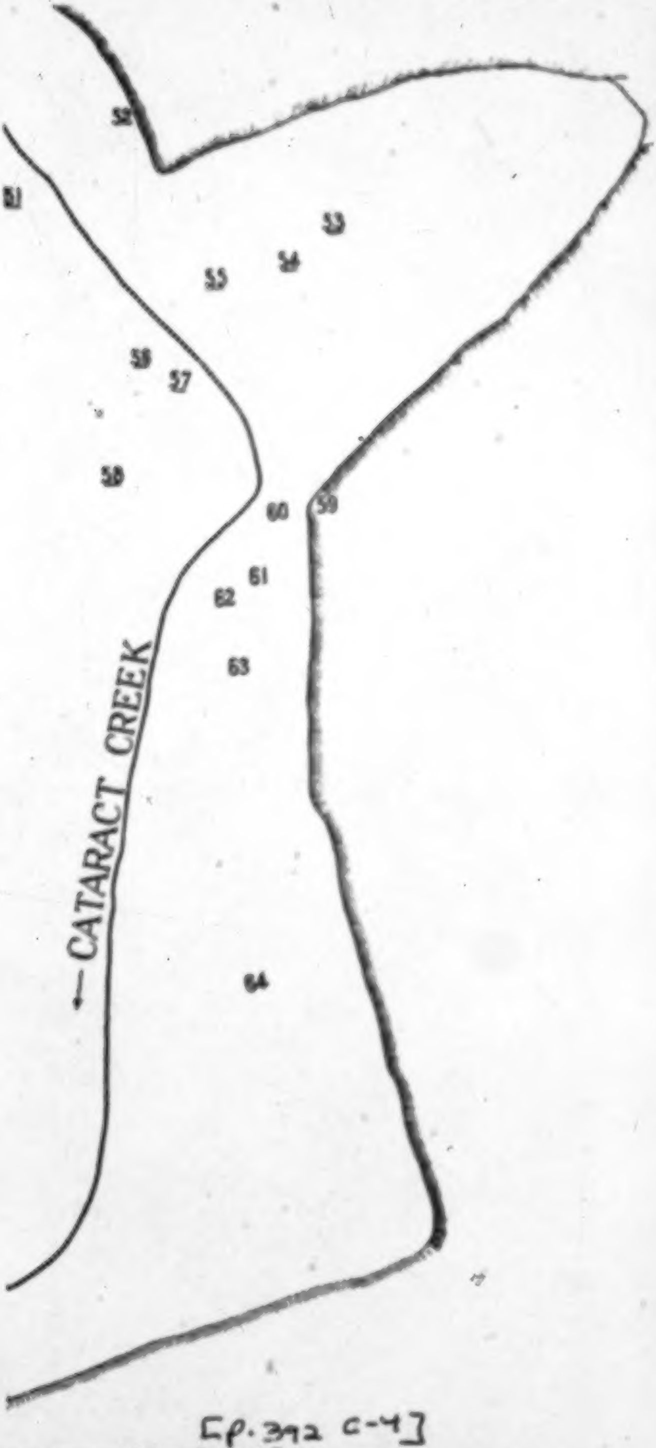
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← CATARACT CREEK

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[The map of the settlement has been reproduced for the files in the following manner:

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[The genealogical charts have been reproduced for the files in the following manner: Chart A - Relatives through Mother - pp. 392 A-1 to A-14.]

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